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1967

OFFICIAL
YEAR BOOK
OF THE
COMMONWEALTH
OF AUSTRALIA

Bureau of census and statistics

No. 53, 1967

Prepared under instructions from The Right Honourable the Treasurer by

K. M. ARCHER

COMMONWEALTH STATISTICIAN

Oct 69

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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

By Authority: A. J. Arthur, Commonwealth Government Printer, Canberra

(Printed in Australia)

Registered by the Postmaster-General for transmission through the post as a book

PREFACE

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, 'to make laws for the peace, order, and good government of the Commonwealth, with respect to . . . Census and statistics.' In the exercise of the power so conferred, a Census and Statistics Act was passed in 1905, and in the year following the Commonwealth Bureau of Census and Statistics was created. The first Official Year Book was published early in 1908. The publication here presented is the fifty-third Official Year Book issued under the authority of the Commonwealth Government.

The special index (preceding the general index) provided at the end of the volume, together with certain references given in the various chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, in order to conserve space, have been omitted or abbreviated in the present volume. Where, in the general index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

Among new material added the following items may be especially mentioned.

Chapter 7. The Territories of Australia: Description of the first census (1966) of Papua and New Guinea covering both indigenous and non-indigenous populations (pages 141–2).

Chapter 8. Population. Summarised historical account of Australian population census activity from 'musters' of 1788–1825 to 1966 census, together with tables showing information required at Commonwealth censuses from 1911 and a description of current census organisation (pages 163–70).

Chapter 13. Transport, Communication and Travel. Special article 'Standardisation of railway gauges' prepared by the Commonwealth Department of Shipping and Transport, dealing with the history of the subject and the development to date (pages 440–5). New sections, dealing with Australian transport co-ordinating authorities (pages 421–4) and road research (pages 464–5).

Australian Books. The re-inclusion of the reprint of this publication of the National Library of Australia (pages 1231–77) which last appeared in the Year Book in issue No. 48.

Seasonally Adjusted Indicators 1967. A brief description of this recent addition to the Bureau's publications, its purpose, and the method of publication of subsequent figures and further seasonally adjusted series is provided in Chapter 30, Miscellaneous (page 1220).

Appendix. Particulars of the characteristics of the population as obtained at the 1966 census. Further detail is being issued in a series of mimeographed statements.

A re-arrangement in chapter order has made it possible to advance the statistics in the chapter Manufacturing Industry by one year to 1965-66.

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

The statistics contained in the majority of the chapters of this volume relate to the years ended June or December 1966. More detailed statistics on subjects dealt with in the Year Book are available in the various annual printed reports published by this Bureau, and more recent statistics are contained in the *Digest of Current Economic Statistics* (monthly), the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and in other publications issued monthly, quarterly, half-yearly, or yearly. These publications are listed in Statistical Publications of Australia (*see* Chapter 30, Miscellaneous), and the last pages of this volume contain a list of current and recent printed publications, showing issue numbers, dates and prices.

In June 1967 the Deputy Commonwealth Statistician and Government Statistician of Tasmania published *Tasmania Year Book No. 1–1967*, thereby renewing a series initiated for the year 1890 by R. M. Johnston, Government Statistician, under the title of *Tasmanian Official Record*, but which lapsed through lack of adequate resources after two subsequent issues. A State Year Book is now published by the Deputy Commonwealth Statistician of each State. These publications contain greater statistical detail and additional supplementary material concerning the individual States which cannot be accommodated in the Commonwealth Year Book.

Apart from Year Books, the Deputy Commonwealth Statisticians of all States issue Pocket Year Books and a number of printed and mimeographed publications dealing with their respective States. These publications are listed on pages 1163–5 of the 1962 issue of the Year Book, and, together with publications of the Central Bureau, in *Publications of the Commonwealth Bureau of Census and Statistics* issued annually by this Bureau.

My thanks are tendered to the Deputy Commonwealth Statisticians of the several States, who have collected and compiled the data on which a great part of the information given in the Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments and to others who have kindly, and often at considerable trouble, supplied information, and to the Government Printer and his staff for their services in printing this Year Book and in assisting and advising throughout its preparation.

K. M. ARCHER
Commonwealth Statistician

Commonwealth Bureau of Census and Statistics
Canberra, A.C.T., September 1967

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SYMBOLS AND OTHER FORMS OF USAGE IN THIS YEAR BOOK

The following symbols, where shown in columns of figures, mean:

n.a. —not available.
.. —nil or less than half the final digit shown, or not applicable.
p —preliminary—figure or series subject to revision.
r —figure or series revised since previous issue.
n.e.i.—not elsewhere included.
n.e.c.—not elsewhere classified.
n.s. —not stated.

A blank space in a column of figures means that the figure concerned is not yet available.

The following abbreviations are used for the titles of the Australian States and Territories and the Commonwealth of Australia: N.S.W. (New South Wales), Vic. (Victoria), Qld (Queensland), S.A. (South Australia), W.A. (Western Australia), Tas. (Tasmania), N.T. (Northern Territory), A.C.T. (Australian Capital Territory), T.P.N.G. (Territory of Papua and New Guinea), Aust. (Australia), Cwlth (Commonwealth).

In general, the statistics in this volume relate to the States and Territories of the Commonwealth of Australia, i.e. they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 7. The Territories of Australia. A few series elsewhere include particulars of the Territory of Papua and New Guinea because of the nature of the subject-matter—these series are indicated.

Yearly periods shown as e.g. 1966 refer to the year ended 31 December 1966; those shown as e.g. 1965–66 refer to the year ended 30 June 1966. Other yearly periods are specifically indicated. The range of years shown in table headings, e.g. 1901 to 1965–66, indicates the period covered, but does not necessarily imply that each intervening year is included.

Unless otherwise indicated, the British system of weights and measures is used. One short ton equals 2,000 lb.

Values are expressed in dollars ($) or cents (c) Australian, with or without the letter A, unless another currency is specifically stated.

Any discrepancies between totals and sums of components in tables are due to rounding.

CORRIGENDA

36–7—last line page 36, first two lines page 37—*for* Regions subject to frost . . . south-western Western Australia. *read* Regions in which frosts may occur at any time of the year comprise most of Tasmania, large areas of the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part in the extreme south-west of Western Australia.

765—***Total, welfare*** Queensland, for *10,900 read 110,900*

CHAPTER 1

DISCOVERY, COLONISATION AND FEDERATION OF AUSTRALIA

Early knowledge and discovery of Australia

The following paragraphs contain only a bare outline of the more important facts relating to the early history of Australian discovery. A more detailed summary of these facts may be found in Year Book No. 39 (*see* page 1) and earlier issues.

Terra Australis

Although references to an Austral land are found in the works of writers in the early centuries after Christ, and evidence appeared in maps, globes and manuscripts from the Middle Ages onward, there is no definite evidence connecting this so-called *Terra Australis* with Australia. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria.

Early discoverers of Australia

The Portuguese may have discovered part of the Australian coast before 1542, and it has been suggested that the Arabs may have come to Australia even earlier, though there is no evidence to support this theory. For all practical purposes, however, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606 the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the island of New Guinea. During March 1606 the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years there were nine visits of Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642 Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644 Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

Discoveries by the English

In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnet*, a trading vessel whose crew had turned buccaneers. In 1699 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

At the end of the seventeenth century it was uncertain whether Tasmania and New Zealand were parts of Australia or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though undertaken primarily for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, and accompanied by Sir Joseph Banks, the botanist, Dr. Solander the naturalist, Green the astronomer, draughtsmen, and servants, Cook, after observing the transit of Venus at Tahiti, turned towards New Zealand, sighting that land on 7 October 1769 in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20 April 1770 Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, on 29 April 1770 he discovered Botany Bay, where he landed. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11 June 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13 July 1771. In 1772 Cook was put in command of the ships *Resolution* and *Adventure* with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14 February 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance, the existence of a channel between Tasmania and Australia, was made by Bass and Flinders in 1798.

The annexation of Australia

Annexation of the eastern part of Australia, 1770

Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23 August 1770 that the history of Australia was brought into definite political connection with western civilization. It was on that date that Captain Cook took possession 'of the whole eastern coast, from latitude 38° S. to this place, latitude 10½° S., in right of His Majesty King George the Third' Cook, however, proclaimed British sovereignty over only what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26 January 1788, when Captain Phillip's Commission, first issued to him on 12 October 1786 and amplified on 2 April 1787, was read to the people whom he had brought with him in the 'First Fleet'.

The commission appointed Phillip 'Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south'.

Although Captain Cook had taken possession of the North Island of New Zealand in November 1769, and of the South Island in January 1770, it is doubtful whether at the time when Captain Phillip's commission was drawn up New Zealand was considered as one of the 'islands adjacent in the Pacific Ocean'. The fact that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, leaves this an open question, as nothing more than extra territorial jurisdiction may have been intended. New Zealand does not appear to have become British territory unequivocally until 1840, when Captain Hobson arrived at the Bay of Islands, and on 30 January read his commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5 February the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21 May British sovereignty over the islands of New Zealand was explicitly proclaimed.

Extension of New South Wales westward, 1825

On 17 February 1824 Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20 September 1824 of the coast from the 135th to the 129th degree of east longitude. On 16 July 1825 the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

Annexation of Western Australia, 1827

An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9 November 1826, landed at the Sound on 26 December following, and on 21 January 1827 hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17 January 1827, and on his return in the following April submitted a glowing report on what he described as a 'rich and romantic country', urging its occupation for the purpose of settlement. He left for England in July 1827, continuing his advocacy, notwithstanding much discouragement, with unabated enthusiasm. He was at last successful, the result being due mainly to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June 1829. On the second of the preceding month, Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of 'all that part of New Holland which is not included within the territory of New South Wales'. Thus before the middle of 1829 the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

The creation of the several Colonies

New South Wales

In Governor Phillip's commission of 1786 the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825 when the western boundary was extended to the 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles. Following the transfer of the Australian Capital Territory to the Commonwealth in 1911 the area was further reduced to 309,433 square miles.

Lord Howe Island, which is a dependency of New South Wales, and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 30′ south, longitude 159° 5′ east, about 436 miles north-east of Sydney, and has an area of 3,220 acres.

Tasmania

Van Diemen's Land, first settled in 1803, was politically separated from New South Wales in 1825, being constituted a separate colony on 14 June. The area of the colony was 26,215 square miles. The name of the colony was officially changed to Tasmania in 1856 when responsible government was established. Following a resurvey of local government areas the area of Tasmania was determined at 26,383 square miles at the end of 1964.

Macquarie Island, about 1,000 miles south-east of Hobart, together with a few rocky islets nearby, has been a dependency of Tasmania since the nineteenth century. In December 1911 five members of the Australasian Antarctic Expedition landed on the island and remained there until 1915. On 3 March 1948 another party was landed to man a new station which has since been maintained as a scientific base. The island is about twenty-one miles long and two miles wide.

Western Australia

The territory westward of the 129th meridian, comprising 975,920 square miles, was constituted a colony under the name of Western Australia in June 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see* above), which remained under the jurisdiction of New South Wales until 1831.

South Australia

On 15 August 1834 the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a 'province', and settlement took place towards the end of the year 1836. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28 December 1836 and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude and between the 141st and 132nd meridians of east longitude. On 10 December 1861, by authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6 July 1863, the Northern Territory, comprising 523,620 square miles, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 903,690 square miles. The Territory was transferred to the Commonwealth on 1 January 1911 (*see* below).

New Zealand

New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales by letters patent of 16 November of that year, was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7 August 1840. Proclamation of the separation was made on 3 May 1841. The area of the colony was 103,862 square miles.

Victoria

In 1851 the 'Port Phillip District' of New South Wales was constituted the colony of Victoria, 'bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia'. The area of the new colony was 87,884 square miles, and its separate existence took effect from 1 July 1851.

Queensland

The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6 June 1859, although separation from New South Wales was not completed until 10 December of the same year. The territory comprised by the new colony was 'so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8′ south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean'. The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13 March 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12 April 1862, the area of Queensland was increased by the annexation of 'so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria'. With this addition the area of Queensland became 670,500 square miles. Following a thorough revision of the area of each local government area of Queensland, based on the most recent maps available, the Surveyor-General, in 1958, determined the area of Queensland as 667,000 square miles—a reduction of 3,500 square miles from the area previously determined.

The establishment of the Commonwealth of Australia

Federation

On 1 January 1901 the colonies mentioned, with the exception of New Zealand, were federated under the name of the 'Commonwealth of Australia', the designation of 'Colonies'—except in the case of the Northern Territory, to which the designation 'Territory' applied—being at the same time changed to that of 'States'.

Transfer of the Northern Territory to the Commonwealth

On 7 December 1907 the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act, 1907 (assented to on 14 May 1908) and by the Commonwealth Parliament under the *Northern Territory Acceptance Act* 1910 (assented to on 16 November 1910). The Territory was formally transferred to the Commonwealth on 1 January 1911, and became the Northern Territory of Australia.

By Imperial Order in Council dated 23 July 1931 Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth on 10 May 1934, in the *Ashmore and Cartier Islands Acceptance Act* 1933, under the name of the Territory of Ashmore and Cartier Islands. The Act authorised the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July 1938 annexed the islands to the Northern Territory, whose laws, ordinances and regulations, wherever applicable, thereupon applied.

The area of Ashmore Reef is approximately 60 square miles (to the limit of the reef), and it is situated 220 statute miles off the western coast of Australia and 520 statute miles west of Darwin. Cartier Islands are approximately 17 square miles in area (to the limit of the reef), and are situated 184 statute miles off the western coast of Australia and 490 statute miles west of Darwin.

Transfer of the Australian Capital Territory to the Commonwealth

On 18 October 1909 the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the Seat of Government of the Commonwealth. In December 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5 December 1910 a proclamation was issued vesting the Territory in the Commonwealth on and from 1 January 1911. By the *Jervis Bay Territory Acceptance Act* 1915 an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4 September 1915.

Present composition of the Commonwealth

Following revision of the area of Queensland and Tasmania as mentioned on pages 3 and 4, and of the area of the Northern Territory during 1964, the total area of the Commonwealth of Australia has been determined as 2,967,909 square miles. The dates of creation and the areas of its component States and Territories are shown below.

THE COMMONWEALTH OF AUSTRALIA: YEAR OF FORMATION AND AREA OF COMPONENT STATES AND TERRITORIES

State or Territory	Year of formation into separate Colony or Territory	Present area in square miles	State or Territory	Year of formation into separate Colony or Territory	Present area in square miles
New South Wales	1786	309,433	Northern Territory	1863	**520,280**
Victoria . .	1851	87,884	Australian Capital Territory . .	1911	**939**
Queensland . .	1859	667,000			
South Australia .	1834	380,070			
Western Australia .	1829	975,920	**Commonwealth of Australia . .**	..	**2,967,909**
Tasmania . .	1825	26,383			

The Constitution of the Commonwealth

Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the federal movement in Australia, was embodied in this chapter in issues of the Year Book up to and including No. 22.

Commonwealth Constitution Act

The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: 'An Act to constitute the Commonwealth of Australia', as amended by the *Constitution Alteration* (*Senate Elections*) 1906, the *Constitution Alteration* (*State Debts*) 1909, the *Constitution Alteration* (*State Debts*) 1928, and the *Constitution Alteration* (*Social Services*) 1946, is given *in extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31 December 1966.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT.
63 & 64 VICT., CHAPTER 12.

An Act to Constitute the Commonwealth of Australia. (9th July, 1900.)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. " The Commonwealth " shall mean the Commonwealth of Australia as established under this Act.

" The States " shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called " a State."

" Original States " shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament:
  - Part I.—General:
  - Part II.—The Senate:
  - Part III.—The House of Representatives:
  - Part IV.—Both Houses of the Parliament:
  - Part V.—Powers of the Parliament:
- Chapter II.—The Executive Government:
- Chapter III.—The Judicature:
- Chapter IV.—Finance and Trade:
- Chapter V.—The States:
- Chapter VI.—New States:
- Chapter VII.—Miscellaneous:
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called " The Parliament ", or " The Parliament of the Commonwealth ".

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

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* The Parliament has otherwise provided, by means of the *Representation Act* 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18 May 1948).

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years,** and the places of those of the second class at the expiration of [the sixth year] *six years,** from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

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* As amended by Section 2 of the *Constitution Alteration* (*Senate Elections*) 1906. The words in square brackets have been repealed; amendments are shown in italics.

22. Until the Parliament otherwise provides, the presence of at least one third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales	twenty-three;	South Australia	six;
Victoria	twenty;	Tasmania	five;
Queensland	eight;		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales	twenty-six;	South Australia	seven;
Victoria	twenty-three;	Western Australia	five;
Queensland	nine;	Tasmania	five.

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

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* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act* 1918–1965, Sections 39 and 39A (repealing an earlier provision made by the *Commonwealth Franchise Act* 1902). For present qualifications *see* Chapter 3 General Government.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:
- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.*

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or

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* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act* 1918–1965, Section 69. For present qualifications *see* Chapter 3, General Government.

(iii) Is an undischarged bankrupt or insolvent: or

(iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or

(v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section (iv) does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

(i) Becomes subject to any of the disabilities mentioned in the last preceding section: or

(ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or

(iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

(i) The mode in which its powers, privileges, and immunities may be exercised and upheld;

(ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:—

(i) Trade and commerce with other countries, and among the States:

(ii) Taxation; but so as not to discriminate between States or parts of States:

(iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:

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* The Parliamentary allowance has been varied from time to time (*see* Chapter 3, General Government). In 1964 it was increased to £3,500 ($7,000), while additional allowances of £2,000 ($4,000) and £4,250 ($8,500), respectively, were granted to the Leaders of the Opposition in the Senate and the House of Representatives, and an additional allowance of £1,000 ($2,000) to the Leader in the House of Representatives (other than the Leader of the Opposition) of a recognised political party which has not less than ten members in the House of Representatives and of which no member is a Minister.

† Particulars of proposed laws which were submitted to referendums are referred to in Chapter 3, General Government, of this Year Book.

(iv) Borrowing money on the public credit of the Commonwealth:

(v) Postal, telegraphic, telephonic, and other like services:

(vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:

(vii) Lighthouses, lightships, beacons and buoys:

(viii) Astronomical and meteorological observations:

(ix) Quarantine:

(x) Fisheries in Australian waters beyond territorial limits:

(xi) Census and statistics:

(xii) Currency, coinage, and legal tender:

(xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:

(xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned:

(xv) Weights and measures:

(xvi) Bills of exchange and promissory notes:

(xvii) Bankruptcy and insolvency:

(xviii) Copyrights, patents of inventions and designs, and trade marks:

(xix) Naturalization and aliens:

(xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:

(xxi) Marriage:

(xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:

(xxiii) Invalid and old-age pensions:

(xxiiiA) ***The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*

(xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:

(xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:

(xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws:

(xxvii) Immigration and emigration:

(xxviii) The influx of criminals:

(xxix) External affairs:

(xxx) The relations of the Commonwealth with the islands of the Pacific:

(xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:

(xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:

(xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:

(xxxiv) Railway construction and extension in any State with the consent of that State:

(xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:

(xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:

(xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:

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* Under Section 2 of the *Constitution Alteration* (*Social Services*) 1946, the Constitution was amended by the insertion of this paragraph.

(xxxviii) The exercise within the Commonwealtn, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:

(xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:

(ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:

(iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of the members of the Senate and the House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

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* The number of Ministers of State has been increased from time to time and has been 26 since 1967. the annual appropriation for Ministers' salaries has been correspondingly increased and has been $197,300 since February 1967.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:
Naval and military defence:
Lighthouses, lightships, beacons, and buoys:
Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.[*]

72. The Justices of the High Court and of the other Courts created by the Parliament—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.[†]

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

(i) Of any Justice or Justices exercising the original jurisdiction of the High Court:

(ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:

(iii) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

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[*] The *Judiciary Act* 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six.

[†] The *Judiciary Act* 1903 provided for the payment of a salary of £3,500 ($7,000) a year to the Chief Justice and of £3,000 ($6,000) a year to each other Justice, increased by subsequent amendments to £12,000 ($24,000) and £10,500 ($21,000) a year, respectively.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

(i) Arising under any treaty:

(ii) Affecting consuls or other representatives of other countries:

(iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:

(iv) Between States, or between residents of different States, or between a State and a resident of another State:

(v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

(i) Arising under this Constitution, or involving its interpretation:

(ii) Arising under any laws made by the Parliament:

(iii) Of Admiralty and maritime jurisdiction:

(iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

(i) Defining the jurisdiction of any federal court other than the High Court:

(ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:

(iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

(i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary:

(ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:

(iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:

(iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

(i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.

(ii) The Commonwealth shall debit to each State—

  (*a*) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;

  (*b*) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.

(iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:

(ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State:

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilties incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council:
(ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:
(iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (1.) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

(*a*) *the taking over of such debts by the Commonwealth;*
(*b*) *the management of such debts;*
(*c*) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
(*d*) *the consolidation, renewal, conversion, and redemption of such debts;*
(*e*) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
(*f*) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2.) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3.) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4.) *Any such agreement may be varied or rescinded by the parties thereto.*

(5.) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6.) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

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* Under Section 2 of the *Constitution Alteration* (*State Debts*) 1909, the words in square brackets were omitted.

† Under Section 2 of the *Constitution Alteration* (*State Debts*) 1928, the Constitution was amended by the insertion of this section.

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State: and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the Seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

The Royal Proclamation

The preceding Act received the Royal assent on 9 July 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17 September 1900, constituted the Commonwealth as from 1 January 1901; it read as follows.

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled " An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

The External Territories of Australia

Norfolk Island

In 1856 Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony, and finally by the passage of the *Norfolk Island Act* 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 3′ 3″ S., longitude 167° 57′ 5″ E., and comprises an area of approximately 14 square miles.

Papua

Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1 September 1906, under the authority of the *Papua Act* 1905. The area of Papua is about 86,100 square miles.

Trust Territory of New Guinea

In 1919 it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25′ E. The mandate was issued by the League of Nations on 17 December 1920. The Governor-General of the Commonwealth was authorised to accept the mandate by the *New Guinea Act* 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 92,160 square miles, and the administration under the mandate dated from 9 May 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved on 13 December 1946.

Trust Territory of Nauru

In 1919 the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in latitude 0° 32′ S., and longitude 166° 55′ E. and is about 8¼ square miles in area. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the *Nauru Island Agreement Act* 1919, and a supplementary agreement of 30 May 1923, which gave the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. So far, the administrators have been appointed by the Commonwealth Government. The administration under the mandate operated from 17 December 1920 to 1 November 1947, since when Nauru has been administered under a Trusteeship Agreement with the United Nations.

Australian Antarctic Territory

An Imperial Order in Council of 7 February 1933 placed under Australian authority 'all the islands and territories other than Adelie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude'.

The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passing of the *Australian Antarctic Territory Acceptance Act* 1933 by the Commonwealth Parliament. The boundaries of Adelie Land were definitely fixed by a decree of 1 April 1938, as latitude 60° S., longitude 135° E. and longitude 142° E.

Heard and McDonald Islands

Heard and McDonald Islands, about 2,500 miles south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26 December 1947. Heard Island is approximately 27 miles long and 13 miles wide, and McDonald Islands, about 26 miles to the west of Heard Island, are small, rocky and precipitous.

Cocos (Keeling) Islands

The Cocos (Keeling) Islands Act 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23 November 1955 as the date of transfer. From that date the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands. Their approximate area is about 5½ square miles.

Christmas Island

The *Christmas Island Act* 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1 October 1958, and an Official Representative was appointed to administer the Territory. The area of the island is about 52 square miles.

CHAPTER 2

PHYSICAL GEOGRAPHY AND METEOROLOGY

General description of Australia

Geographical position

The Australian Commonwealth, which includes the island continent of Australia and the island of Tasmania, is situated in the Southern Hemisphere, and comprises an area of 2,967,909 square miles, the mainland alone containing 2,941,526 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 9′ E. and 153° 39′ E., while its northern and southern limits are the parallels of latitude 10° 41′ S. and 43° 39′ S., or, excluding Tasmania, 39° 8′ S. On its north are the Timor and Arafura Seas and Torres Strait, on its south the Southern Ocean[*]. The extreme points are Steep Point on the west, Cape Byron on the east, Cape York on the north, and South-East Cape or, if Tasmania be excluded, Wilson's Promontory, on the south. The difference in latitude between Cape York and Wilson's Promontory is 1,959 miles, and in longitude between Steep Point and Cape Byron 2,489 miles.

Tropical and temperate regions

Of the total area of Australia, nearly 39 per cent lies within the tropics. Taking the latitude of the Tropic of Capricorn as 23° 30′ S., the areas within the tropical and temperate zones are approximately as follows.

AREAS OF TROPICAL AND TEMPERATE REGIONS: STATES AND TERRITORIES

(Square miles)

Area	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Total
Within tropical zone .	. .	. .	360,642	. .	364,000	. .	422,980	1,147,622
,, temperate zone	310,372	87,884	306,358	380,070	611,920	26,383	97,300	1,820,287
Total area . .	**310,372**	**87,884**	**667,000**	**380,070**	**975,920**	**26,383**	**520,280**	**2,967,909**

(*a*) Includes Australian Capital Territory (939 square miles).

Fifty-four per cent of Queensland lies within the tropical zone and 46 per cent in the temperate zone; 37 per cent of Western Australia is tropical and 63 per cent temperate; while 81 per cent of the Northern Territory is tropical and 19 per cent temperate. All the remaining States lie within the temperate zone. The tropical part of Australia thus comprises about 39 per cent of the whole of the continent.

Area of Australia compared with areas of other countries

The area of Australia is almost as great as that of the United States of America excluding Alaska, four-fifths of that of Canada, more than half as large again as Europe excluding the U.S.S.R., and about twenty-five times that of Great Britain and Ireland. The areas of Australia and of certain other countries are shown in the table on the following page. The areas shown are in the main obtained from the *Demographic Yearbook*, 1965, published by the Statistical Office of the United Nations, and the countries have been arranged in accordance with the continental groups used therein.

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[*] The Southern Ocean is a local designation for that part of the Indian Ocean lying between the southern shores of Australia and Antarctica.

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *circa* 1964

('000 square miles)

Country	Area
Continental divisions—	
Europe(*a*)	1,903
Asia(*a*)	10,661
U.S.S.R. (Europe and Asia)	8,650
Africa	11,683
North and Central America and West Indies	9,365
South America	6,875
Oceania	3,285
Total, World, excluding Arctic and Antarctic continents	**52,422**
Europe(*a*)—	
France	211
Spain (incl. possessions)	195
Sweden	174
Finland	130
Norway	125
Poland	121
Italy	116
Yugoslavia	99
Germany, Fed. Republic of	96
United Kingdom	94
Romania	92
Other	451
Total, Europe(a)	*1,903*
Asia(*a*)—	
China, Mainland	3,692
India	1,176
Saudi Arabia	870
Iran	636
Mongolia	593
Indonesia	576
Pakistan	366
Trucial Oman	301
Turkey	292
Burma	262
Afghanistan	250
Thailand	198
Iraq	173
Other	1,275
Total, Asia(a)	*10,661*
U.S.S.R.—	
Total, U.S.S.R.	*8,650*
Africa—	
Sudan	967
Algeria	920
Congo, Democratic Republic of	906
Libya	679
Chad	496
Africa—*continued*	
Niger	489
Angola	481
Ethiopia	472
South Africa, Republic of	471
Mali	464
Mauritania	398
United Arab Republic	386
Tanzania, United Republic of	363
Nigeria	357
South-West Africa	318
Mozambique	302
Zambia	291
Somalia	246
Central African Republic	241
Madagascar	227
Kenya	225
Other	1,984
Total, Africa	*11,683*
North and Central America—	
Canada	3,852
United States of America(*b*)	3,615
Greenland	840
Mexico	762
Nicaragua	54
Cuba	44
Honduras	43
Other	155
Total, North and Central America	*9,365*
South America—	
Brazil	3,286
Argentina	1,072
Peru	496
Colombia (excl. Panama)	440
Bolivia	424
Venezuela	352
Chile	292
Paraguay	157
Ecuador	109
Other	246
Total, South America	*6,875*
Oceania—	
Australia	2,968
New Zealand	104
New Guinea(*c*)	92
Papua	86
Other	36
Total, Oceania	*3,285*

(*a*) Excludes U.S.S.R., shown below. (*b*) Includes Hawaii. (*c*) Australian Trust Territory. Western New Guinea (West Irian) is included in Other Asia.

AREAS OF STATES AND TERRITORIES AND STANDARD TIMES

State or Territory	Area	Percentage of total area	Standard times	
			Meridan selected	Ahead of G.M.T.
	sq miles			hours
New South Wales .	309,433	10.43	150° E.	10
Victoria . . .	87,884	2.96	150° E.	10
Queensland . .	667,000	22.47	150° E.	10
South Australia . .	380,070	12.81	142°30′E.	9½
Western Australia .	975,920	32.88	120° E.	8
Northern Territory .	520,280	17.53	142°30′E.	9½
Australian Capital Territory . .	939	0.03	150° E.	10
Mainland . .	*2,941,526*	*99.11*	..	..
Tasmania . . .	26,383	0.89	150° E.	10
Australia . .	**2,967,909**	**100.00**	..	..

(*a*) Includes Australian Capital Territory.

Geographical features of Australia

The following description is a broad summary of the main physical characteristics of the Australian continent.

A section through the Australian continent from east to west, at the point of its greatest breadth, shows first a narrow belt of coastal plain. This plain, extending north and south along the whole east coast, is well watered by rivers. It is of variable width, seldom more than sixty or seventy miles, and occasionally only a few miles, the average being roughly about forty to fifty miles. Bordering this plain is the Great Dividing Range, which extends from the north of Queensland to the south of New South Wales, and thence one branch sweeps westwards towards the boundary of Victoria and South Australia, and the other, the main branch, terminates in Tasmania. This range, which rises, often abruptly, from the plain, frequently presents bold escarpments on its eastern face, but the descent on its western slopes is gradual, until, in the country to the north of Spencer's Gulf, the plain is not above sea-level and occasionally even below it. Thence there is another almost imperceptible rise until the mountain ranges of Western Australia are reached, and beyond these lies another coastal plain. The mountains of Australia are relatively low, the highest peak, Mount Kosciusko, in New South Wales, being only about 7,300 feet. Three-quarters of the land-mass of Australia lies between the 600 and 1,500 feet contours in the form of a huge plateau, constituting the most distinctive feature of the Australian continent, to which the peculiarities of Australia's climate can probably be largely ascribed.

The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall and those of the central plains with very slight fall. Of the former not many are navigable for any distance from their mouths, and bars make many of them difficult of access or inaccessible from the sea.

The two longest rivers of the northern part of the east coast are the Burdekin and the Fitzroy in Queensland. The Hunter is the largest coastal river of New South Wales, and the Murray River, with its great tributary the Darling, drains part of Queensland, the major part of New South Wales, and a large part of Victoria, finally flowing into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 1,600 miles, 400 being in South Australia and 1,200 constituting the boundary between New South Wales and Victoria. The total length of the Murray-Darling from the source of the Darling to the mouth of the Murray is about 2,300 miles. The rivers of the north-west coast of

Australia (Western Australia), e.g. the Murchison, Gascoyne, Ashburton, Fortesque, De Grey, Fitzroy, Drysdale and Ord are of considerable size. So also are those in the Northern Territory, e.g. the Victoria and Daly, and those on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert and Mitchell. The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

The 'lakes' of Australia may be divided into three classes: true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse. The second class is the only one which seems to demand special mention. These are a characteristic of the great central plain of Australia. Some of them, such as Lakes Torrens, Gairdner, Eyre, and Frome, are of considerable extent.

For further information on the geographical features of Australia earlier issues of the Year Book should be consulted. The list of special articles, etc. at the end of this volume indicates the nature of the information available and its position in the various issues.

Climate and meteorology of Australia

This section has been prepared by the Director of the Commonwealth Bureau of Meteorology, and the various States and Territories have been arranged in the standard order adopted by that Bureau. The section concludes with a brief summary of the weather of 1966.

Introduction

Australia extends from about latitude 10° S. to latitude 44° S., but owing largely to the moderating effects of the surrounding oceans and the absence of very pronounced and extensive mountain masses it is less subject to extremes of climate than are regions of similar size in other parts of the world. The average elevation of the land surface is low—probably close to 900 feet above the sea; while the maximum altitude is just above 7,300 feet. Latitude for latitude the Australian climate is generally more temperate than that of the other large land masses of the earth, although it varies considerably from the tropical to the alpine.

The Australian meteorological seasons are: Summer—December, January, February; Autumn—March, April, May; Winter—June, July, August; Spring—September, October, November.

The following general discussion of the climate of Australia is necessarily brief. However, extensive records of Australian climatic data are held and published in various forms by the Bureau of Meteorology. A programme of regional climatic survey has been in progress for some years, and a large number of studies have been published by the Bureau of Meteorology by the Department of National Development and by State Development Authorities. The Bureau of Meteorology welcomes inquiries for climatic information, which may be made at its Central Office in Melbourne or through the Regional Offices which are situated in each of the State capital cities and in Darwin. Reference may also be made to various bulletins and research papers mentioned in this text for more detailed information on particular topics.

Precipitation

Precipitation of moisture from the atmosphere may take various forms depending chiefly on the thermal conditions existing at the time. Within the Australian region precipitation occurs chiefly as rain because of the generally mild temperatures, but may also occur as snow or hail. Broadly, the immediate physical cause of rainfall may be said to be the lifting of moist air with resultant cooling, condensation into cloud, and eventual precipitation of the heavy water droplets as rain. This process may be achieved by three different means each of which may be combined with either or both of the others:

(*a*) Orographic lifting caused by winds blowing onto rising terrain;

(*b*) convectional lifting resulting in the development of individual rain clouds of the cumulus or cumulonimbus type producing showers and thunderstorms;

(*c*) lifting of a warm air mass as it rises over cooler air—known as a 'frontal' process.

Average annual rainfall. The distribution of the average annual rainfall over Australia is shown in plate 2 (between pages 32 and 33), while plate 3 shows the distribution in 1966.

While Australia is a continent of comparatively low relief, the orographic processes in rain production are very marked in the chain of the Great Dividing Range bordering the whole east coast of the continent, in the ranges of the south-western corner of Western Australia, and in Tasmania. Thus on the east coast the higher rainfall areas lie between the ranges and the Pacific Ocean in the region of prevailing south-east wind circulation. In Tasmania and the south-west of Western Australia the region of high rainfall lies between the ranges and the ocean to the west, these areas lying in a region of predominantly westerly wind flow.

The north-western part of the continent and to some extent the whole region of the Northern Territory and inland north Queensland comes under the influence of the Australian-Asian monsoon. This results in high rainfalls in a summer wet season with the inflow of moist air from the north-west, and a winter dry season with predominantly south-east winds blowing across the dry regions of the interior and producing little rainfall. Tropical cyclones affect the waters adjacent to the north-east and north-west of Australia between December and April. Their frequency varies greatly from season to season, but on the average about three of these disturbances occur in the Coral Sea each season and about two in the eastern Indian Ocean adjacent to the west coast of the continent. When tropical cyclones move close to the tropical coast of the continent they cause very heavy rainfalls over the coastal regions. On occasions these cyclones move over the land and lose intensity, but may still continue to be accompanied by heavy rainfall along their path.

Southern Australia lies in the region of the mid-latitude westerlies for the winter half of the year and is subject to the rain-producing influences of the great depressions of the Southern Ocean and their associated frontal systems. The combined effects of these systems and the topography lead to high winter rainfalls in south-western and south-eastern Australia and in Tasmania, with the highest falls occurring on the windward side of the mountains. The rainfall generally decreases inland with distance from the coast, although the 10-inch isohyet reaches the shore of the Great Australian Bight and the central western coast of Western Australia in regions which are of very flat relief and which because of their position and the orientation of the coastline are only rarely exposed to moist winds.

AREA DISTRIBUTION OF AVERAGE ANNUAL RAINFALL
STATES AND TERRITORIES

(Per cent)

Average annual rainfall	W.A.	N.T.	S.A.	Qld	N.S.W. (*a*)	Vic.	Tas.	Total
Under 10 inches .	58.0	24.7	82.8	13.0	19.7	Nil	Nil	39.0
10 and under 15 inches .	22.4	32.4	9.4	14.4	23.5	22.4	Nil	20.6
15 ,, ,, 20 ,, .	6.8	9.7	4.5	19.7	17.5	15.2	0.7	11.2
20 ,, ,, 25 ,, .	3.7	6.6	2.2	18.8	14.2	17.9	11.0	9.0
25 ,, ,, 30 ,, .	3.7	9.3	0.8	11.6	9.1	18.0	11.4	7.2
30 ,, ,, 40 ,, .	3.3	4.7	0.3	11.1	9.9	16.1	20.4	6.1
40 inches and over . .	2.1	12.6	Nil	11.4	6.1	10.4	56.5	6.9
Total . . .	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Includes Australian Capital Territory.

The region with the highest average annual rainfall is the east coast of Queensland between Port Douglas and Cardwell, where Tully has an annual average of 177 inches. A further very high rainfall region is the mountainous west coast of Tasmania, where Lake Margaret has the highest average annual total of 145 inches. The area of lowest average annual rainfall is that of some 180,000 square miles surrounding Lake Eyre in South Australia, where on the average only 4 to 6 inches are received annually. The lowest average over a long period of record is at Troudaninna—4.13 inches. Rain occurs very irregularly, averaging only about one or two days a month in this region.

Of all the continents (excluding Antarctica), Australia receives the least average depth of rainfall and has the least run-off from its rivers into the oceans. Only in relatively small areas of the continent could the rainfall be described as abundant.

Seasonal distribution of rainfall. The average monthly distribution of rainfall in the various Australian rainfall districts is shown by the histograms of plate 4.

The following are the most marked features.

(*a*) The clearly defined wet summer and dry winter of the monsoon region of northern Australia.

(*b*) The more regular distribution of rainfall throughout the year in south-eastern Australia. In the region to the south and west of the Great Dividing Range a less pronounced maximum of rainfall is noticeable in the winter or early spring. On the Gippsland (eastern Victoria) coast the rainfall is fairly evenly distributed throughout the year but further along the east coast of the continent the rainfall minimum in late winter and early spring begins to appear and becomes more marked as the tropical regions are approached.

(*c*) The marked maximum of rainfall in the south-western districts of Western Australia in winter—the period of the most active southern depressions and frontal systems in this region.

For further information on monthly rainfalls reference may be made to the various Australian rainfall bulletins, to the Climatological Surveys of particular districts and to the annual rain maps and books of normals (standard 30 year periods), all published by the Bureau of Meteorology.

Variability of rainfall. For most agricultural pursuits a more important criterion of the value of rainfall is its variability or reliability. The adequate description of rainfall variability over an extensive geographical area is a matter of some difficulty. Probably the best available measures are to be found in the tables which have been calculated for a number of individual stations in some of the Climatological Survey districts. These tables show the percentage chances of receiving specified amounts of rainfall in monthly seasonal or annual time spans. Statistical indexes of rainfall variation based on a number of different techniques have been used to produce maps which show the main features of the variability of annual rainfall over Australia. A discussion of these methods and the maps is given by F. Loewe in *Some Considerations Regarding the Variability of Annual Rainfall in Australia*, Bureau of Meteorology Bulletin No. 39 (1948).

In general it may be stated that the regions of most reliable rainfall are the south-west of Western Australia, western Tasmania, and western and southern Victoria south of the divide. These areas have one of the most reliable rainfalls in the world. Elsewhere in Australia the degree of variability, in general, increases inland but the region of the highest variability for low average annual rainfalls extends across the central part of the continent from south-western Queensland to the central coast of Western Australia. Some outstanding examples of the numerous instances of high rainfall variability throughout Australia are given below.

At Onslow (Western Australia) annual totals vary from 0.05 inches to 28 inches, and in the four consecutive years 1921 to 1924 the annual totals were 22.25, 2.71, 26.82, and 2.18 inches respectively. At Whim Creek, where 29.41 inches have been recorded in a single day, only 17 points (0.17 inches) were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas, e.g. at Tully the annual rainfalls have varied from 310.92 inches in 1950 to 104.98 inches in 1943.

The following table of annual rainfall for the Australian capital cities for the past thirty years indicates the variation in rainfall at these sites.

RAINFALL: AUSTRALIAN CAPITAL CITIES, 1936 TO 1965

Year	Perth		Adelaide		Brisbane		Sydney		Canberra(*a*)		Melbourne		Hobart(*b*)	
	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days
	in		in		in		in		in		in		in	
1936	30.64	118	19.34	121	21.77	101	30.22	130	26.24	108	24.30	187	19.60	178
1937	35.28	120	23.01	128	34.79	113	52.00	157	20.46	82	21.45	144	20.65	160
1938	29.64	111	19.26	119	43.49	110	39.17	132	19.26	79	17.63	131	31.32	169
1939	45.70	123	23.29	139	41.43	122	33.67	127	27.63	116	33.11	166	27.23	188
1940	20.00	98	16.16	116	42.37	93	39.34	125	17.38	64	19.83	126	17.17	135
1941	34.74	122	22.56	126	31.50	105	26.74	129	19.55	91	31.78	157	23.49	145
1942	39.24	140	25.44	133	44.01	125	48.29	121	25.76	104	29.79	148	19.42	163
1943	31.46	117	17.84	135	50.68	126	50.74	136	24.59	123	18.80	150	20.84	149
1944	27.39	123	17.13	114	27.85	100	31.04	115	12.05	75	21.32	143	26.23	151
1945	52.67	137	17.85	105	48.16	130	46.47	136	22.35	100	19.22	152	16.92	157
1946	41.47	122	22.59	135	38.66	83	36.05	111	22.31	94	29.80	177	39.45	193
1947	43.42	137	21.89	146	60.30	146	41.45	137	27.95	135	30.47	163	38.61	181
1948	34.75	126	21.40	122	41.54	106	38.83	131	32.11	101	20.98	155	23.42	178
1949	27.15	126	18.23	119	47.18	121	66.26	149	27.71	100	31.41	163	22.85	157
1950	32.27	122	16.06	91	63.93	152	86.33	183	43.35	132	26.18	147	19.25	131
1951	34.14	127	25.44	135	33.89	87	53.15	143	22.00	103	29.85	155	24.57	163
1952	39.28	123	19.99	128	33.49	122	59.19	130	37.87	141	34.39	177	30.35	165
1953	37.14	119	20.00	121	43.60	101	40.86	110	19.40	102	28.38	148	28.06	162
1954	28.05	112	16.73	109	61.36	142	41.29	134	18.81	82	33.53	139	27.20	143
1955	46.52	138	24.58	134	50.41	136	72.46	160	30.85	124	30.70	160	22.32	168
1956	37.35	107	27.24	154	59.18	120	67.33	155	40.46	150	30.96	188	36.63	175
1957	33.40	117	16.71	110	20.58	80	27.13	110	14.41	81	20.68	146	28.66	129
1958	32.08	107	17.57	121	46.61	115	59.19	144	30.23	117	26.98	155	36.55	166
1959	24 23	114	11.32	88	45.84	146	59.67	164	34.41	112	25.84	131	19.28	136
1960	28.21	112	23.07	129	27.51	103	51.01	152	30.99	136	33.50	162	29.35	140
1961	32.27	113	14.91	122	42.36	134	57.08	161	32.34	116	22.05	129	18.03	156
1962	28.75	123	17.96	125	41.39	131	44.90	137	28.91	126	23.06	140	25.40	161
1963	39.14	140	24.43	118	49.09	134	80.11	169	25.37	141	29.04	149	15.51	129
1964	38.40	127	21.89	135	48.18	112	43.30	99	28.69	121	27.80	166	28.06	169
1965	40.98	128	13.34	111	41.02	113	36.01	118	16.25	103	23.24	122	20.98	158
Average	34 87	121	20.86	121	44.67	124	47.71	150	25.34	107	25 94	143	24.84	165
No. of years	90	90	127	127	114	106	107	107	38	38	110	110	83	83
Standard 30 years' normal(*c*)	35.99	128	21.09	122	40.09	117	44.80	143	*d*24.53	*d*103	25.89	156	25.03	180

(*a*) Commonwealth Forestry Bureau; records in issues of the Year Book prior to No. 36 were for the station at Acton which closed down in 1939. (*b*) Records taken from present site commenced 1883. (*c*) 1911–1940. (*d*) Thirty years to 1957 inclusive.

Prolonged dry spells are fairly common in much of Australia, particularly in inland areas. A detailed discussion of the history of droughts and the frequency in particular areas may be found in Foley, J. C., *Droughts in Australia*, Bureau of Meteorology Bulletin No. 43 (1957). A shorter account of droughts in Australia will be found in a special article in Year Book No. 45, pages 51–6.

Rainfall and vegetation. In general, the three main climatic zones of the continent exert a particular controlling influence on the general vegetation. These are the northern third of the continent where rainfall is almost always restricted to the warmer months of the year, the southern third where rainfall is predominantly a winter and spring event, and a transitional zone which experiences rainfall from both sources, although in greatly reduced quantity over the interior, which is subject to frequent drought.

The length of the growing season, or conversely the extent of dry periods during the year, decides the type of vegetation which establishes in a region. The climatic influence on vegetative response is primarily through soil moisture and temperature. Thus in colder south-eastern areas the growing season is mainly temperature dependent, but elsewhere the availability of soil moisture is the prime factor. All rainfall is not equally effective in increasing the soil moisture, its availability from the soil storage to plants depending on the extent of surface run-off, seepage beyond the root zone, and loss by surface evaporation. Furthermore, the effectiveness of available soil moisture depends on the evaporative demand of the local climate; for example, an inch of stored moisture may maintain vigorous plant growth for twice as long in Tasmania as in the warmer, drier atmosphere of inland New South Wales Thus it is not a sound practice to assess the agricultural potential of different areas simply by reference to average rainfall.

Generally speaking, the length of the growing season exceeds nine months over the far south-west of Western Australia and in all eastern coastal districts from Cape York Peninsula to Western Victoria, and within this region humid and semi-humid plant formations thrive. Soil types, of course, also play a part in the distribution of vegetation, but they too are, to a considerable extent, the result of climate and weather.

The climate of Arnhem Land (Northern Territory) is such that there is a considerable surplus of moisture for about five months of the warm season, followed regularly by a virtual drought which frequently reaches severe intensity, and this special combination of meteorological conditions results in annual and perennial vegetation adapted to this cycle.

Over the interior the position is more complex because of the lower levels of the rainfall, its greater variability, and the high evaporative power of the drier, warmer atmosphere. In this vast section of the continent the climatic demands are so severe that the vegetative formations of the moister zones (i.e. the mesophytes, requiring about five months or longer growing season) are unable to exist. Thus a plant species adapted to these very dry and variable conditions (xerophytes), e.g. spinifex, salt bush, blue bush, and stunted eucalypts, capable of maintaining a cattle population, predominates over the arid interior.

The arid and semi-arid lands of Western Australia and inland New South Wales which border the desert carry the majority of the sheep in these States. In New South Wales the most important vegetative formations in these areas are savannah (treeless plains), savannah woodland, mulga scrub, and mallee scrub. In Western Australia sclerophyllous grass steppe and mulga scrub border the deserts and are succeeded to the south by zones of mallee scrub and mallee heath.

Rainfall intensity. The study of extremely high rainfall intensities is important in the investigation of the flow characteristics of river systems and flood prevention measures the design of irrigation works and hydro-electric schemes. Some of the more notable falls in a period of 24 hours are listed for the various States in the following tables. Most of the very high intensities have occurred in the coastal strip of Queensland, where the combination of a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls. The highest fall recorded in 24 hours, 35.71 inches, occurred at Crohamhurst, Queensland, on 3 February 1893.

Rainfall at most reporting stations in Australia is recorded only for the 24-hour period from 9 a.m. to 9 a.m. The data in this table are based on these records. Where automatic recording gauges are installed, more detailed intensity data are available for shorter and exactly measured time intervals. For other very heavy falls at various localities, reference may be made to Year Books, No. 14, pages 60–4, No. 22, pages 46–8 and No. 29, pages 43, 44 and 51.

HEAVY RAINFALLS TO 1965, INCLUSIVE

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
			WESTERN AUSTRALIA		
Whim Creek	3 Apr. 1898	29.41	Roebuck Plains	5 Jan. 1917	14.01
Fortesque	3 May 1890	23.36	Broome	6 Jan. 1917	14.00
Roebuck Plains	6 Jan. 1917	22.36	Onslow P.O.	8 Feb. 1963	14.00
Widjip	1 Apr. 1934	19.54	Carlton Hill	7 Feb. 1942	12.75
Kimberley			Wyndham	4 Mar. 1919	12.50
(Research)	6 Apr. 1959	16.98	Onslow P.O.	3 Mar. 1961	12.38
Derby	7 Jan. 1917	16.47	Onslow Aerodrome	3 Mar. 1961	12.29
Boodarie	21 Mar. 1899	14.53	Towrana	1 Mar. 1943	12.16
Balla Balla	21 Mar. 1899	14.40	Marble Bar	2 Mar. 1941	12.00
Winderrie	17 Jan. 1923	14.23	Jimba Jimba	1 Mar. 1943	11.54
Pilbara	2 Apr. 1898	14.04			

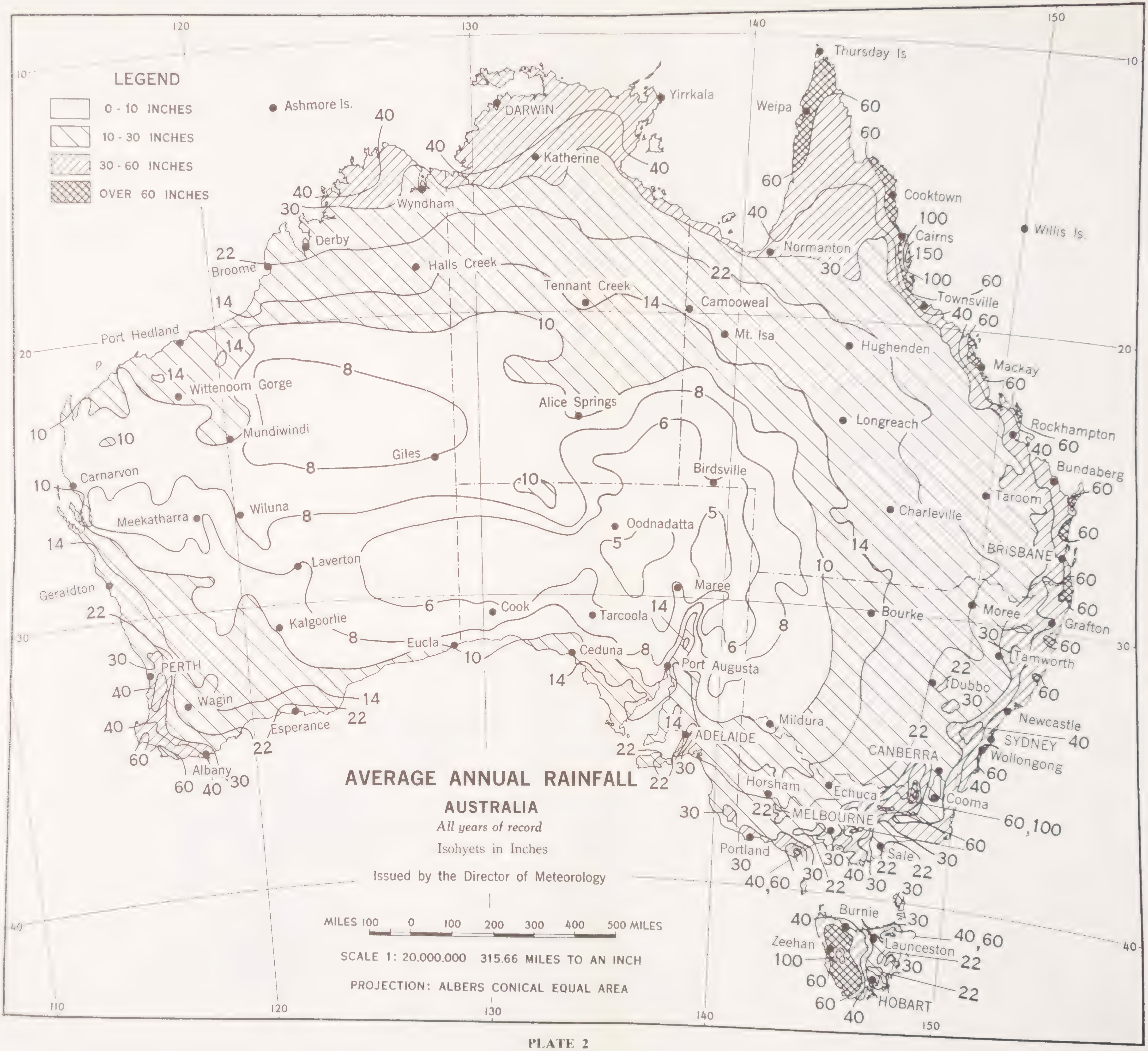

AVERAGE ANNUAL RAINFALL
AUSTRALIA
All years of record
Isohyets in Inches
Issued by the Director of Meteorology
LEGEND
0 - 10 INCHES
10 - 30 INCHES
30 - 60 INCHES
OVER 60 INCHES
MILES 100 0 100 200 300 400 500 MILES
SCALE 1: 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Derby
Cooktown
Cairns
Willis Is.
Broome
Halls Creek
Normanton
Tennant Creek
Townsville
Camooweal
Port Hedland
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Maree
Geraldton
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Port Augusta
Tamworth
PERTH
Dubbo
Wagin
Esperance
Mildura
Newcastle
ADELAIDE
SYDNEY
Wollongong
Albany
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Sale
Portland
Burnie
Zeehan
Launceston
HOBART
110
120
130
140
150
10
20
30
40

PLATE 2

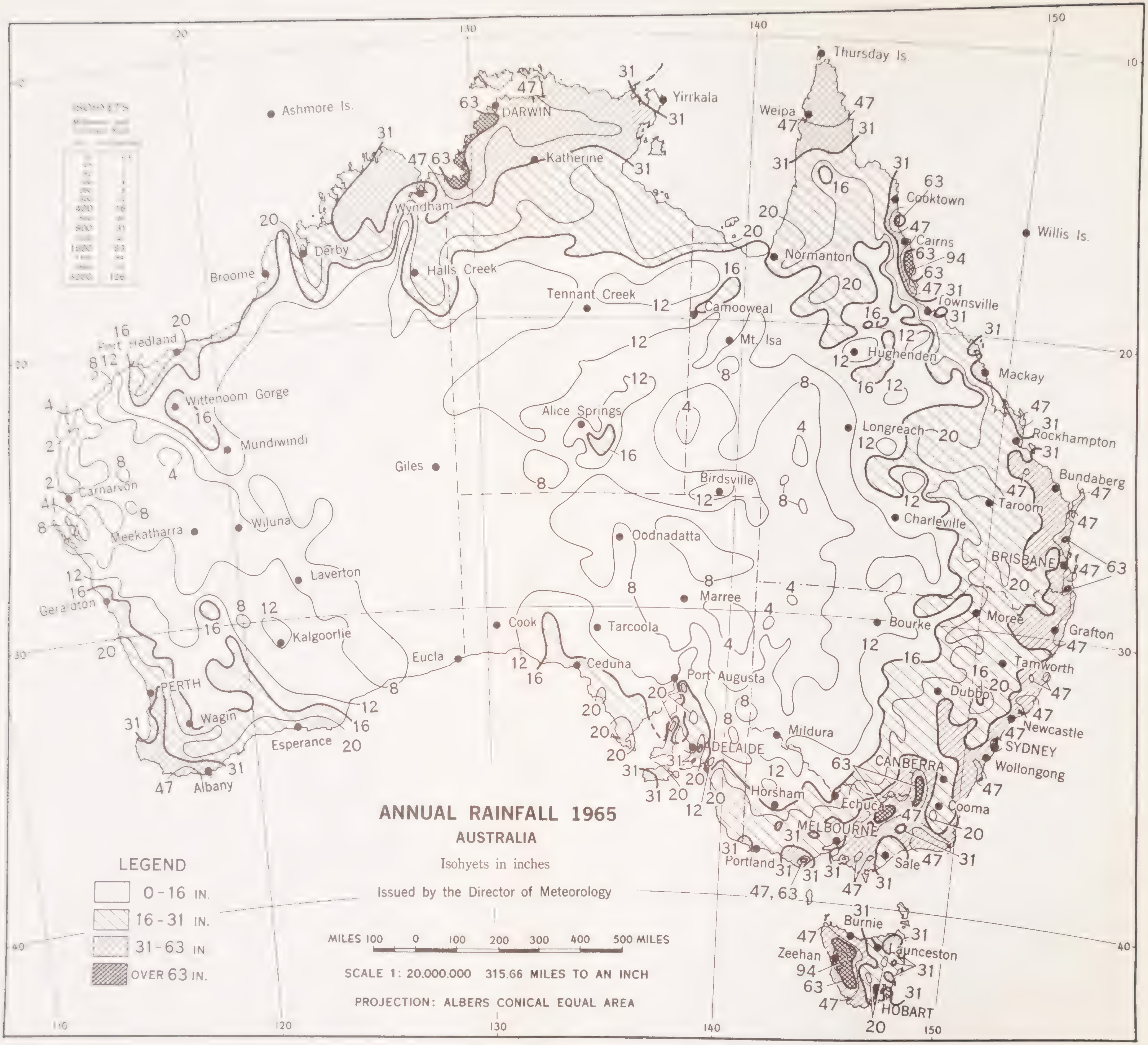
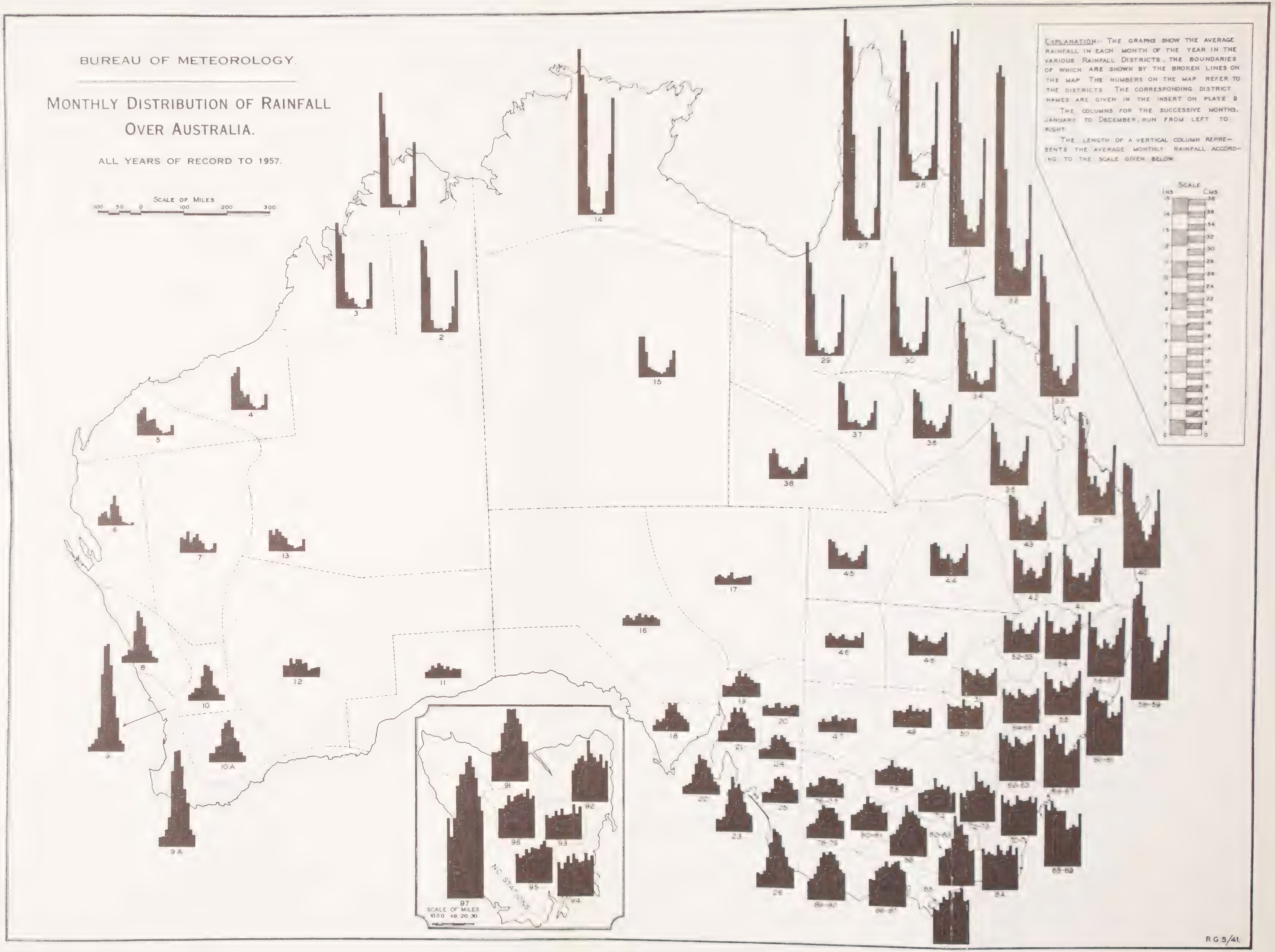

ANNUAL RAINFALL 1965
AUSTRALIA
Isohyets in inches
Issued by the Director of Meteorology
LEGEND
0-16 IN.
16-31 IN.
31-63 IN.
OVER 63 IN.
MILES 100 0 100 200 300 400 500 MILES
SCALE 1: 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is.
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is.
Derby
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Mt. Isa
Hughenden
Port Hedland
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Tamworth
PERTH
Dubbo
Wagin
Newcastle
Esperance
Mildura
SYDNEY
ADELAIDE
CANBERRA
Wollongong
Albany
Horsham
Echuca
Cooma
MELBOURNE
Sale
Portland
Burnie
Launceston
Zeehan
HOBART
110
120
130
140
150
10
20
30
40

PLATE 3


BUREAU OF METEOROLOGY.

MONTHLY DISTRIBUTION OF RAINFALL
OVER AUSTRALIA.

ALL YEARS OF RECORD TO 1957.

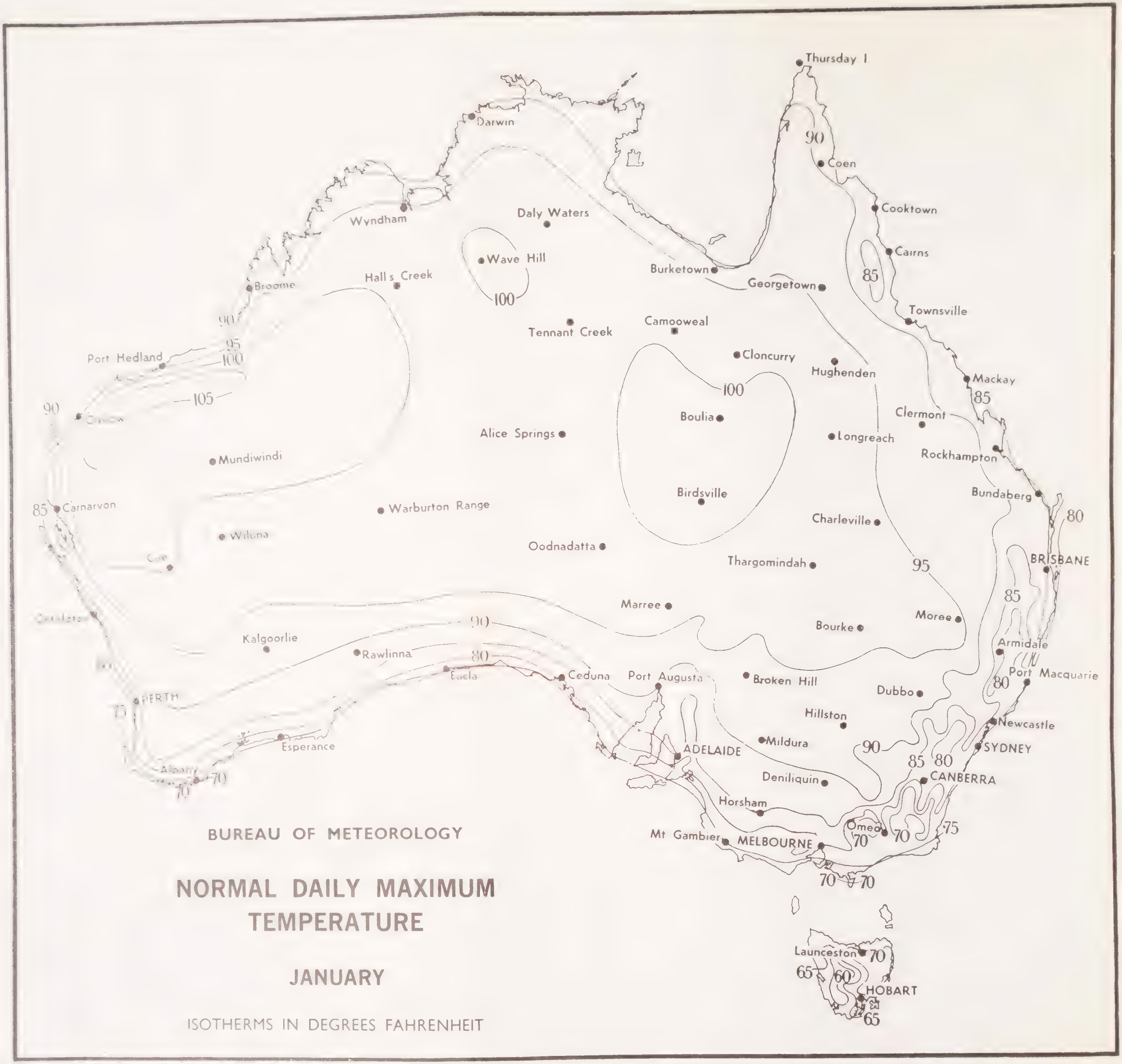
EXPLANATION.– THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS, THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP THE NUMBERS ON THE MAP REFER TO THE DISTRICTS THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PLATE 9

THE COLUMNS FOR THE SUCCESSIVE MONTHS, JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW

SCALE OF MILES
100 50 0 100 200 300
SCALE
INS
CMS
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0
1
2
3
4
5
6
7
8
9
9A
10
10A
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
52-53
54
55
56-57
58-59
64-65
84
85
86-87
88-90
91
92
93
94
95
96
97
NC STATIONS
SCALE OF MILES
10 5 0 10 20 30
R G S/41.

PLATE 4


Thursday I.
Darwin
Coen
90
Cooktown
Wyndham
Daly Waters
Cairns
Wave Hill
100
Burketown
Georgetown
85
Broome
Halls Creek
Townsville
90
95
Tennant Creek
Camooweal
Port Hedland
100
Cloncurry
Hughenden
105
Mackay
85
100
90
Onslow
Boulia
Clermont
Alice Springs
Longreach
Rockhampton
Mundiwindi
Bundaberg
Birdsville
85
Carnarvon
Warburton Range
Charleville
80
Wiluna
Oodnadatta
Cue
Thargomindah
95
BRISBANE
85
Marree
Geraldton
Moree
90
Bourke
Kalgoorlie
Armidale
Rawlinna
80
Port Macquarie
80
Eucla
Ceduna
Port Augusta
Broken Hill
Dubbo
PERTH
75
Hillston
Newcastle
Mildura
90
Esperance
ADELAIDE
SYDNEY
85
80
Albany
70
70
Deniliquin
CANBERRA
Horsham
75
Omeo
70
70
Mt Gambier
MELBOURNE
70
70
Launceston
70
65
60
HOBART
65

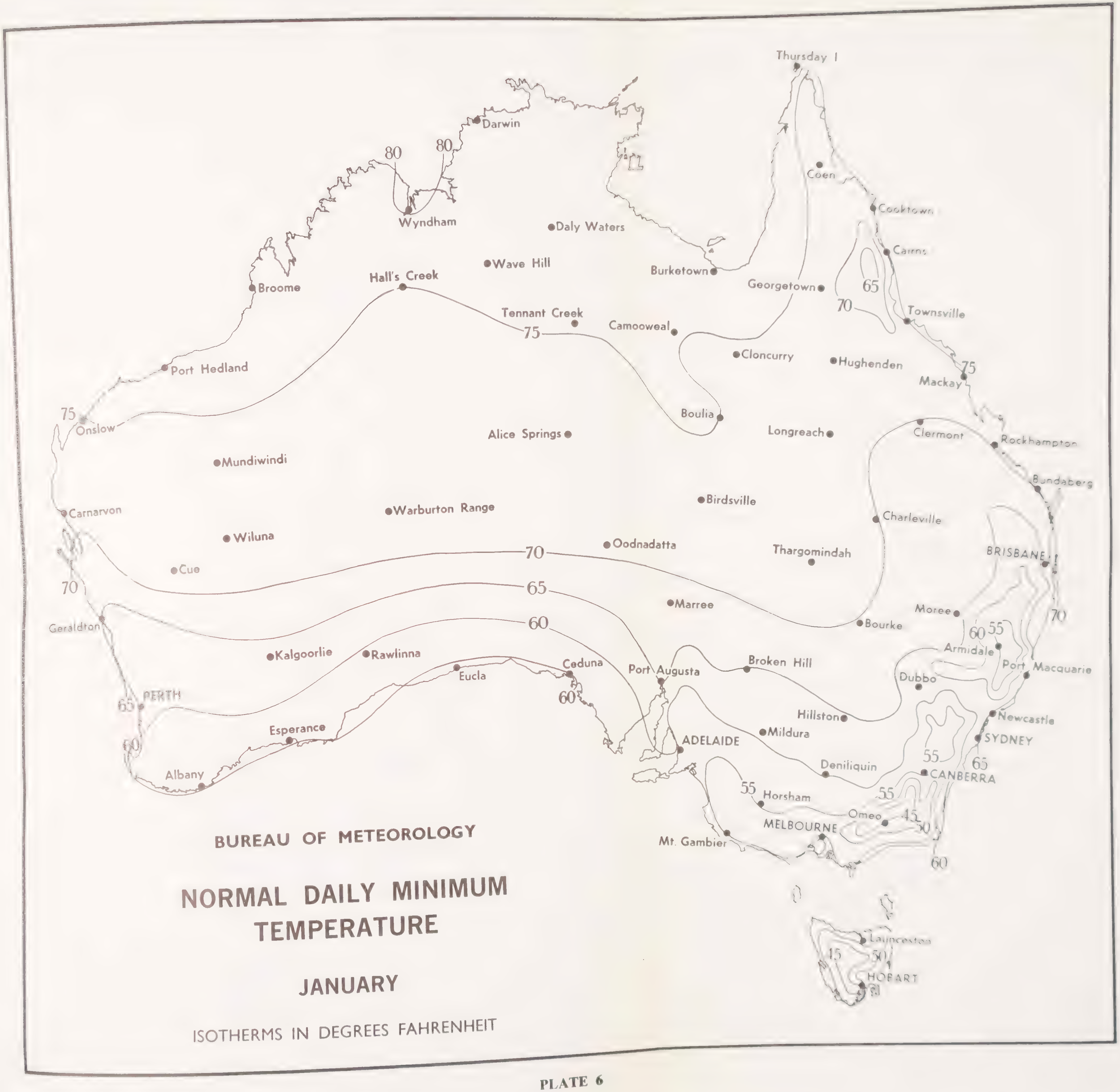
BUREAU OF METEOROLOGY

NORMAL DAILY MAXIMUM TEMPERATURE

JANUARY

ISOTHERMS IN DEGREES FAHRENHEIT

PLATE 5


Thursday I
Darwin
80
80
Coen
Cooktown
Wyndham
Daly Waters
Cairns
Wave Hill
Burketown
Broome
Hall's Creek
Georgetown
65
70
Townsville
Tennant Creek
Camooweal
75
Cloncurry
Hughenden
75
Mackay
Port Hedland
75
Onslow
Boulia
Longreach
Alice Springs
Clermont
Rockhampton
Mundiwindi
Bundaberg
Birdsville
Carnarvon
Warburton Range
Charleville
Wiluna
Oodnadatta
70
Thargomindah
BRISBANE
Cue
70
65
Marree
Moree
70
60
Bourke
60
55
Geraldton
Armidale
Kalgoorlie
Rawlinna
Broken Hill
Port Macquarie
Ceduna
Port Augusta
Eucla
Dubbo
65
PERTH
60
Hillston
Newcastle
Mildura
Esperance
60
ADELAIDE
SYDNEY
Deniliquin
55
65
Albany
CANBERRA
55
Horsham
55
Omeo
45
MELBOURNE
50
Mt. Gambier
60
Launceston
45
50
HOBART

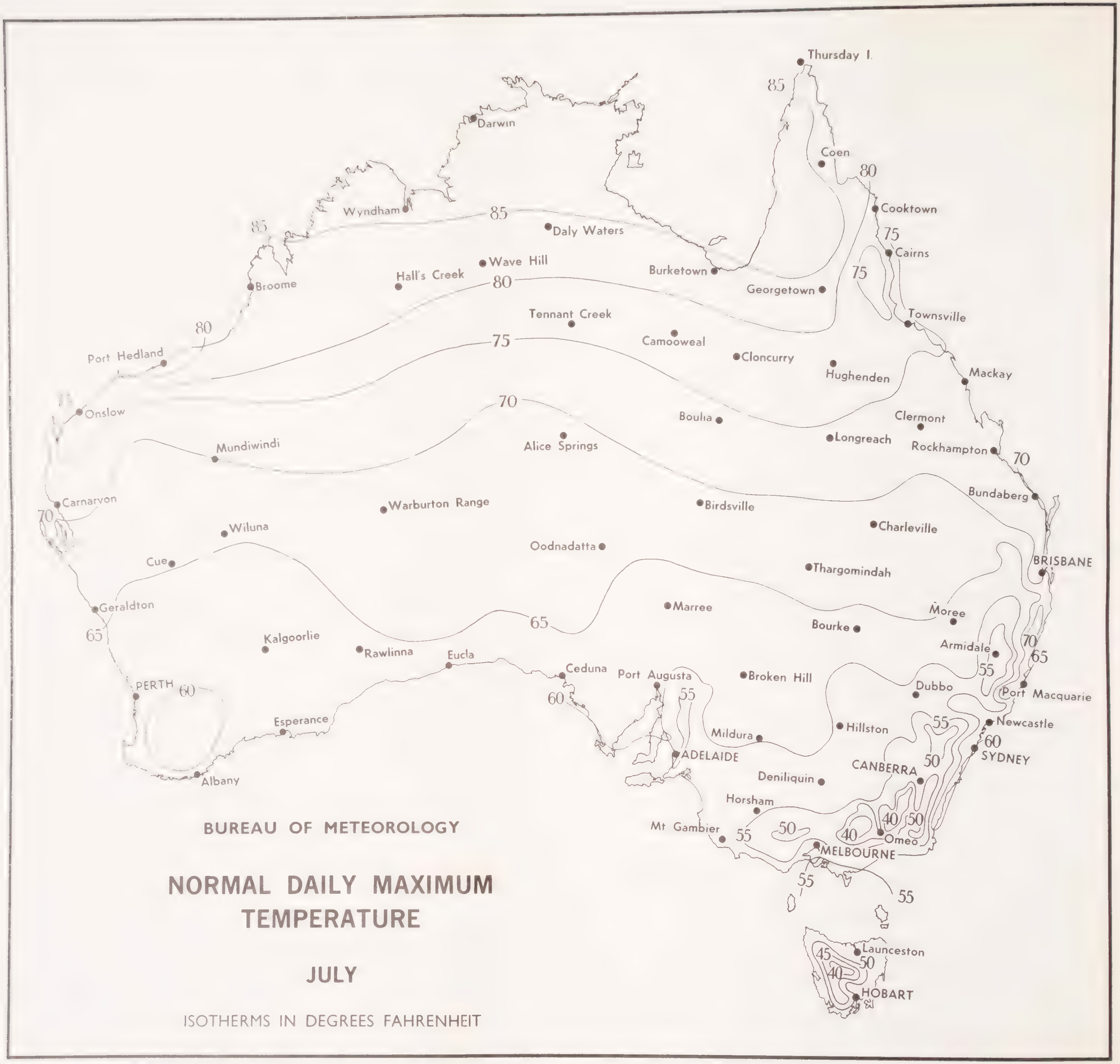
BUREAU OF METEOROLOGY

NORMAL DAILY MINIMUM TEMPERATURE

JANUARY

ISOTHERMS IN DEGREES FAHRENHEIT

PLATE 6


Thursday I.
85
Darwin
Coen
80
Cooktown
75
Cairns
75
Wyndham
85
Daly Waters
85
Wave Hill
Hall's Creek
Burketown
Georgetown
Broome
80
Tennant Creek
Townsville
80
Camooweal
Port Hedland
Cloncurry
75
Hughenden
Mackay
Onslow
70
Boulia
Clermont
Alice Springs
Longreach
Rockhampton
70
Mundiwindi
Bundaberg
Carnarvon
70
Warburton Range
Birdsville
Charleville
Wiluna
Oodnadatta
Cue
BRISBANE
Thargomindah
Geraldton
Marree
Moree
65
Bourke
65
Kalgoorlie
Armidale
70
65
Rawlinna
Eucla
Ceduna
Port Augusta
Broken Hill
55
PERTH
60
Dubbo
Port Macquarie
60
55
Esperance
Mildura
Hillston
55
Newcastle
60
SYDNEY
ADELAIDE
CANBERRA
50
Albany
Deniliquin
Horsham
40
50
50
40
Omeo
Mt Gambier
55
MELBOURNE
55
55
Launceston
45
50
40
HOBART

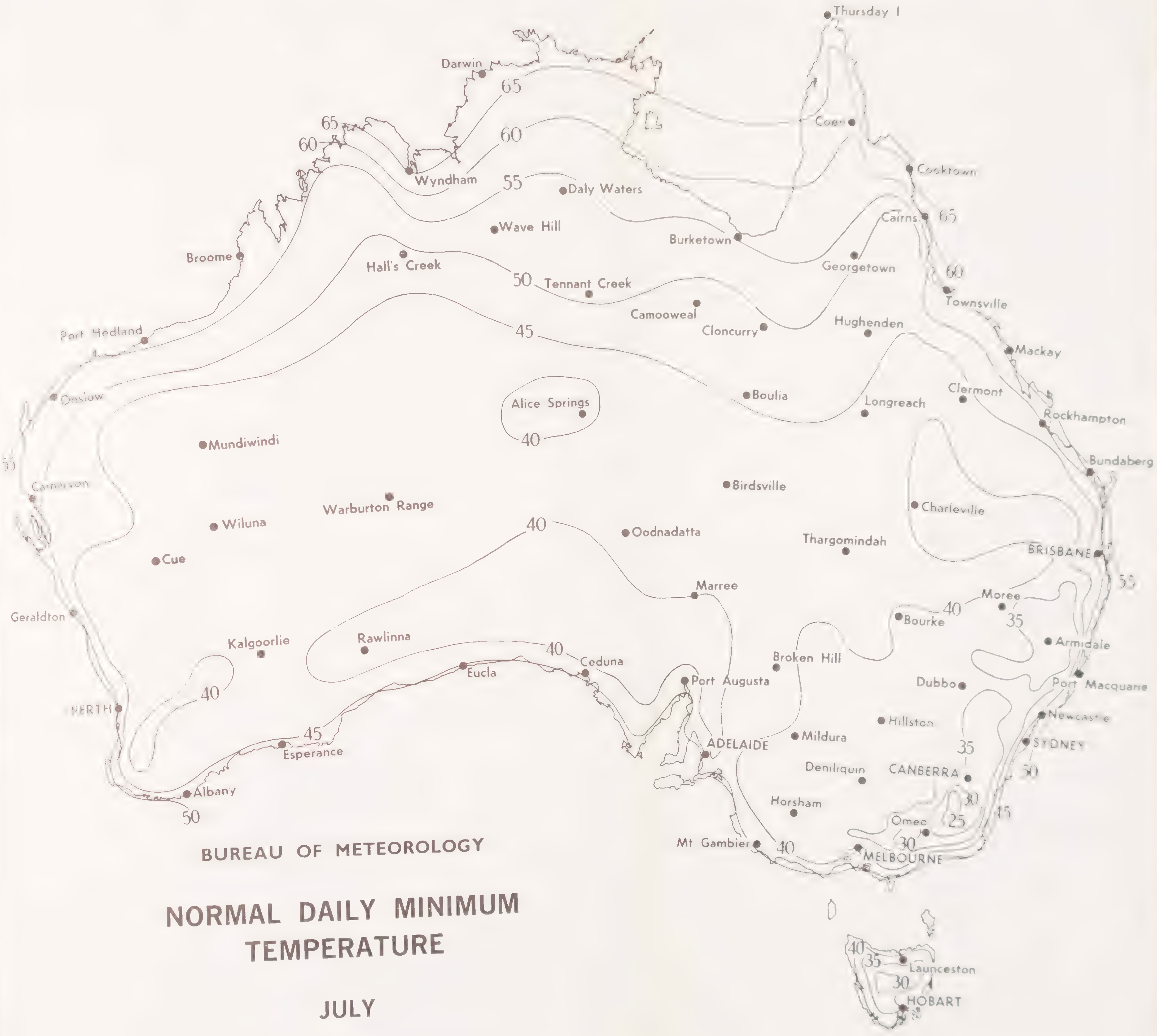
BUREAU OF METEOROLOGY

NORMAL DAILY MAXIMUM TEMPERATURE

JULY

ISOTHERMS IN DEGREES FAHRENHEIT

PLATE 7


Thursday I
Darwin
65
65
60
60
Coen
Cooktown
Wyndham
55
Daly Waters
Wave Hill
Burketown
Cairns
65
Broome
Hall's Creek
Georgetown
60
50
Tennant Creek
Townsville
Camooweal
Cloncurry
Hughenden
Port Hedland
45
Mackay
Onslow
Alice Springs
Boulia
Longreach
Clermont
40
Rockhampton
Mundiwindi
55
Bundaberg
Carnarvon
Birdsville
Warburton Range
Charleville
Wiluna
40
Oodnadatta
Thargomindah
Cue
BRISBANE
Marree
55
Moree
40
Geraldton
35
Bourke
Kalgoorlie
Rawlinna
Armidale
40
Ceduna
Broken Hill
Eucla
Port Augusta
Dubbo
Port Macquarie
40
PERTH
Newcastle
Hillston
Mildura
SYDNEY
45
ADELAIDE
35
Esperance
Deniliquin
CANBERRA
50
Albany
30
Horsham
50
25
45
Omeo
Mt Gambier
40
30
MELBOURNE
40
35
Launceston
30
HOBART

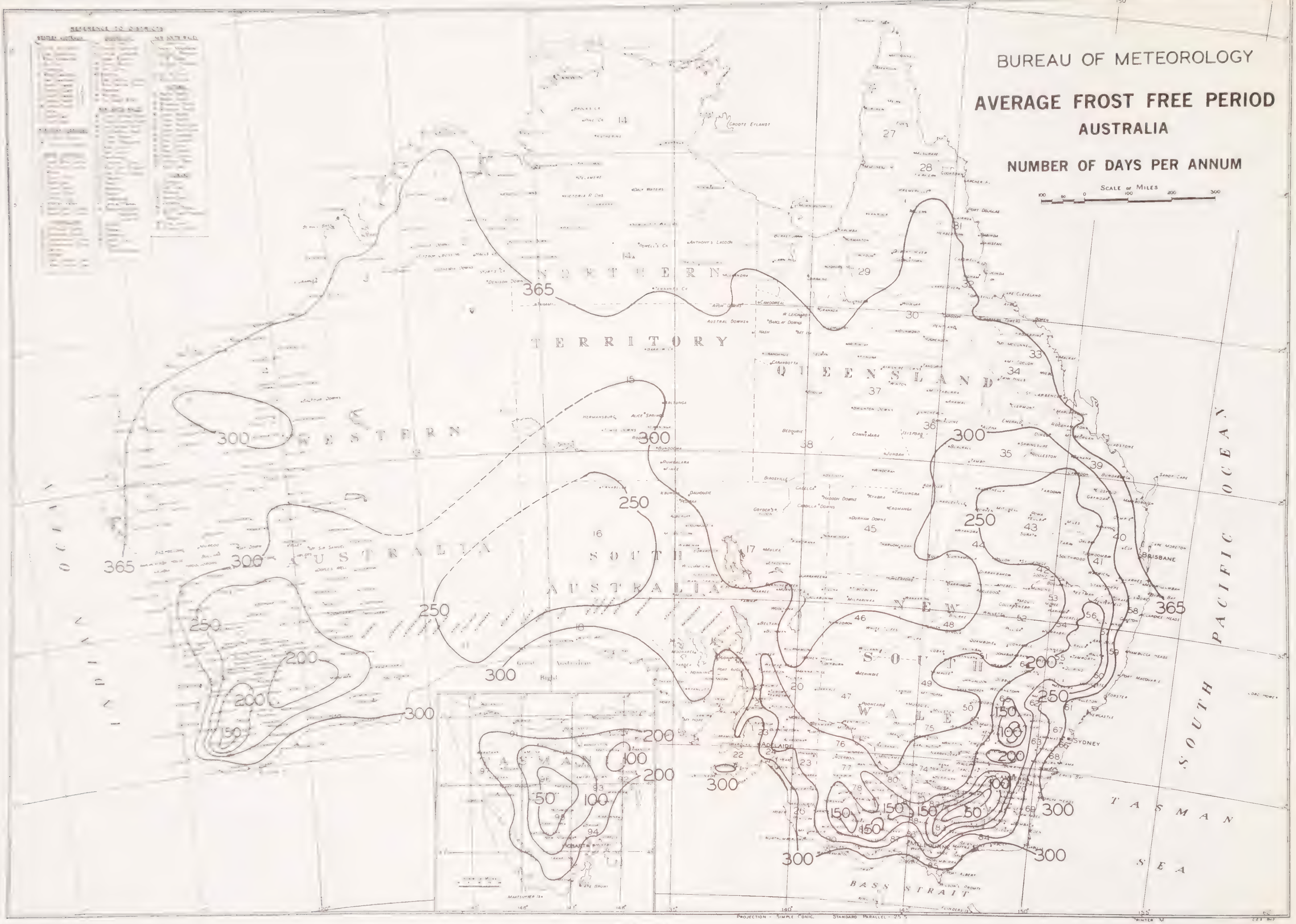
BUREAU OF METEOROLOGY

NORMAL DAILY MINIMUM TEMPERATURE

JULY

ISOTHERMS IN DEGREES FAHRENHEIT

PLATE 8



BUREAU OF METEOROLOGY

AVERAGE FROST FREE PERIOD

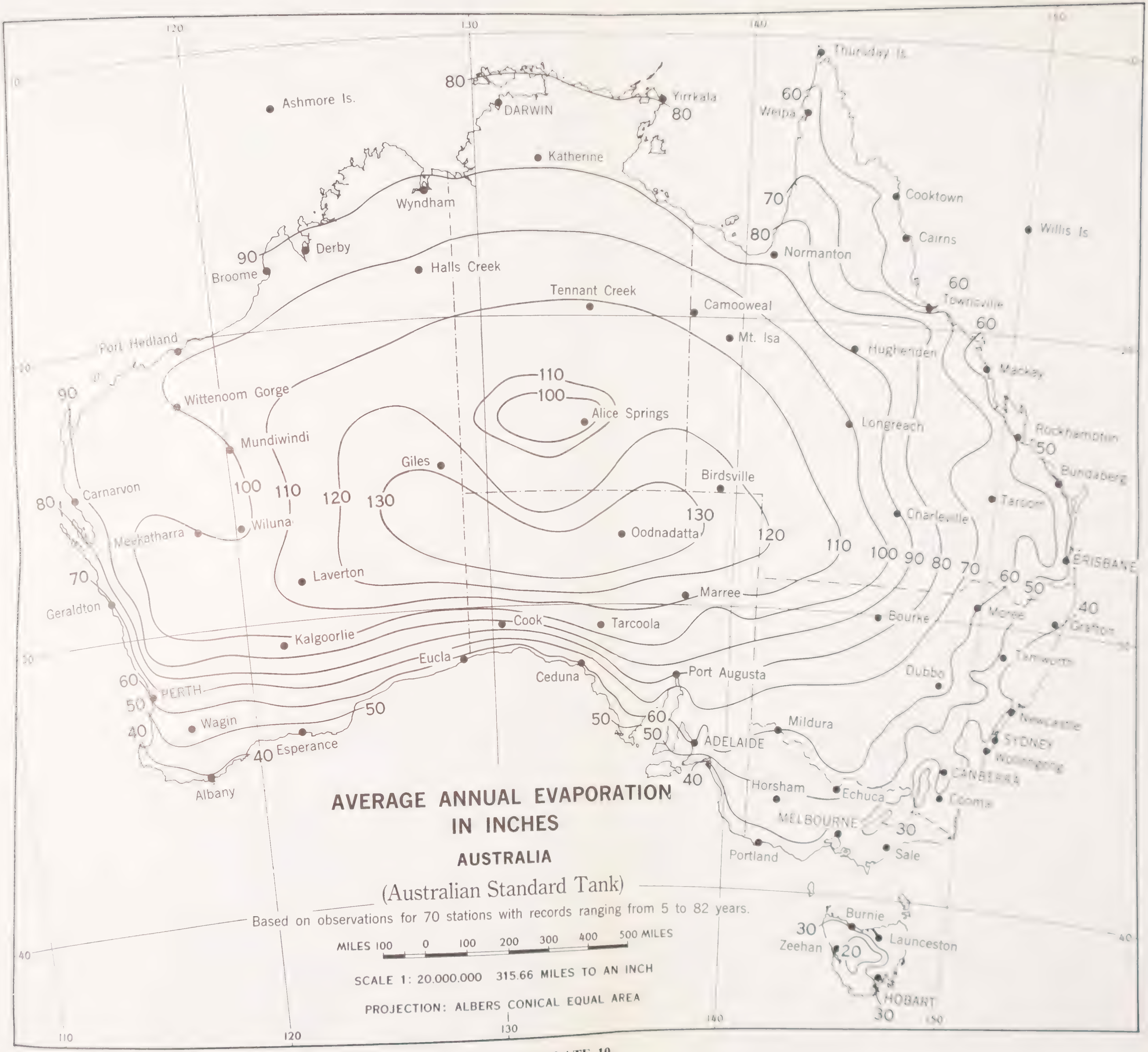
AUSTRALIA

NUMBER OF DAYS PER ANNUM

SCALE of MILES
100
50
0
100
200
300
NORTHERN TERRITORY
QUEENSLAND
WESTERN AUSTRALIA
SOUTH AUSTRALIA
NEW SOUTH WALES
TASMANIA
INDIAN OCEAN
SOUTH PACIFIC OCEAN
TASMAN SEA
BASS STRAIT
Great Australian Bight
BRISBANE
SYDNEY
ADELAIDE
MELBOURNE
HOBART
365
300
250
200
150
100
50

PROJECTION - SIMPLE CONIC. STANDARD PARALLEL - 25°S

PLATE 9


120
130
140
150
10
20
30
40
110
Thursday Is.
Ashmore Is.
80
DARWIN
Yirrkala
80
60
Weipa
Katherine
Wyndham
70
Cooktown
80
Willis Is
Cairns
90
Derby
Broome
Normanton
Halls Creek
60
Townsville
Tennant Creek
Camooweal
60
Port Hedland
Mt. Isa
Hughenden
Mackay
90
110
100
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
50
Mundiwindi
Bundaberg
Giles
Birdsville
100
110
120
130
Carnarvon
80
130
Taroom
Charleville
Wiluna
Meekatharra
Oodnadatta
120
110
100
90
80
70
BRISBANE
60
50
70
Laverton
Marree
40
Geraldton
Bourke
Moree
Cook
Tarcoola
Grafton
Kalgoorlie
Tamworth
Eucla
Port Augusta
Dubbo
60
PERTH
Ceduna
50
50
Newcastle
60
SYDNEY
Wagin
50
50
Mildura
40
ADELAIDE
Wollongong
40
Esperance
CANBERRA
Albany
40
Horsham
Echuca
Cooma
MELBOURNE
30
Sale
Portland
Burnie
30
Launceston
Zeehan
20
HOBART
30

AVERAGE ANNUAL EVAPORATION IN INCHES

AUSTRALIA

(Australian Standard Tank)

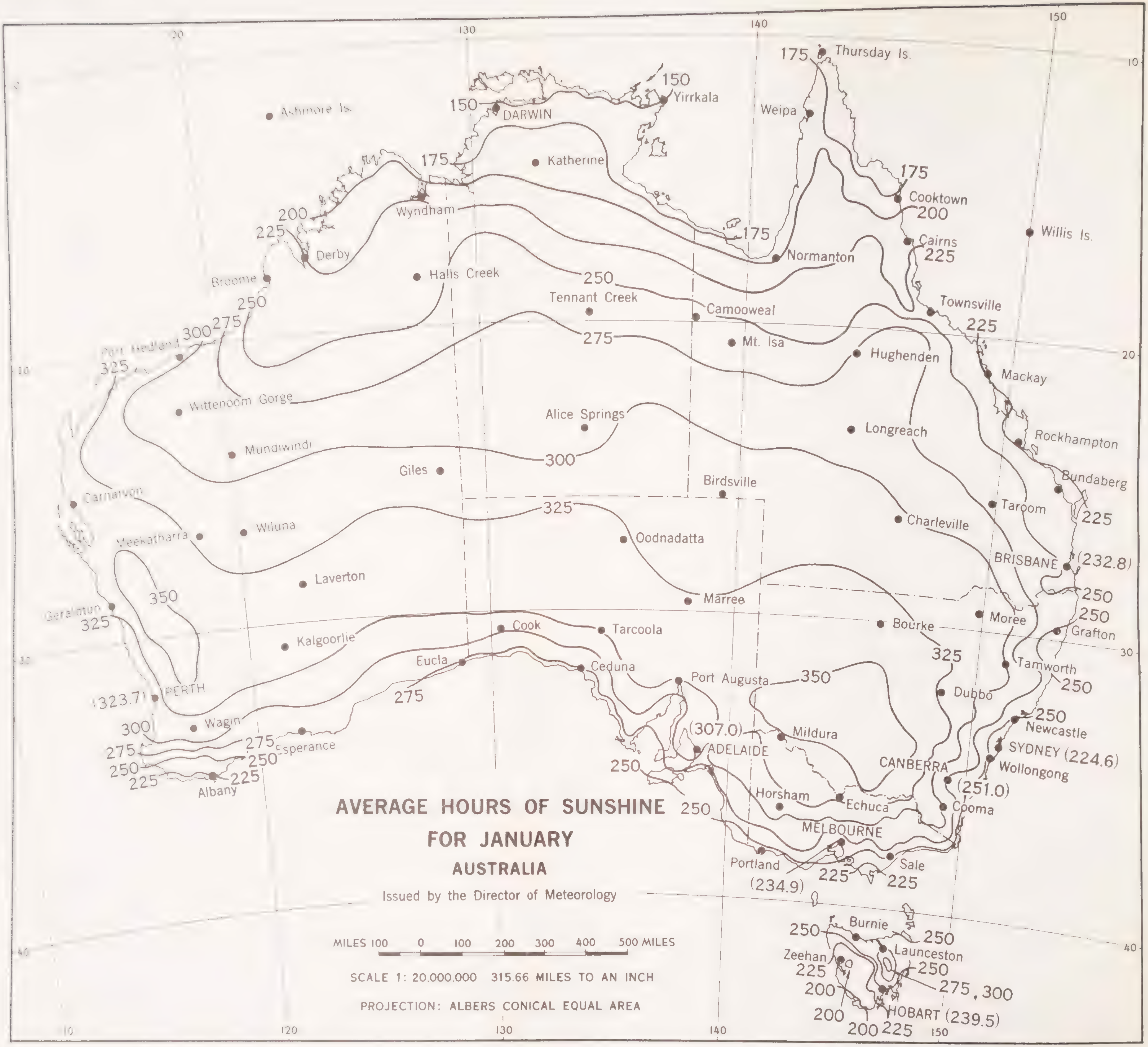
Based on observations for 70 stations with records ranging from 5 to 82 years.

MILES 100 0 100 200 300 400 500 MILES

SCALE 1: 20.000.000 315.66 MILES TO AN INCH

PROJECTION: ALBERS CONICAL EQUAL AREA

PLATE 10



AVERAGE HOURS OF SUNSHINE FOR JANUARY

AUSTRALIA

Issued by the Director of Meteorology

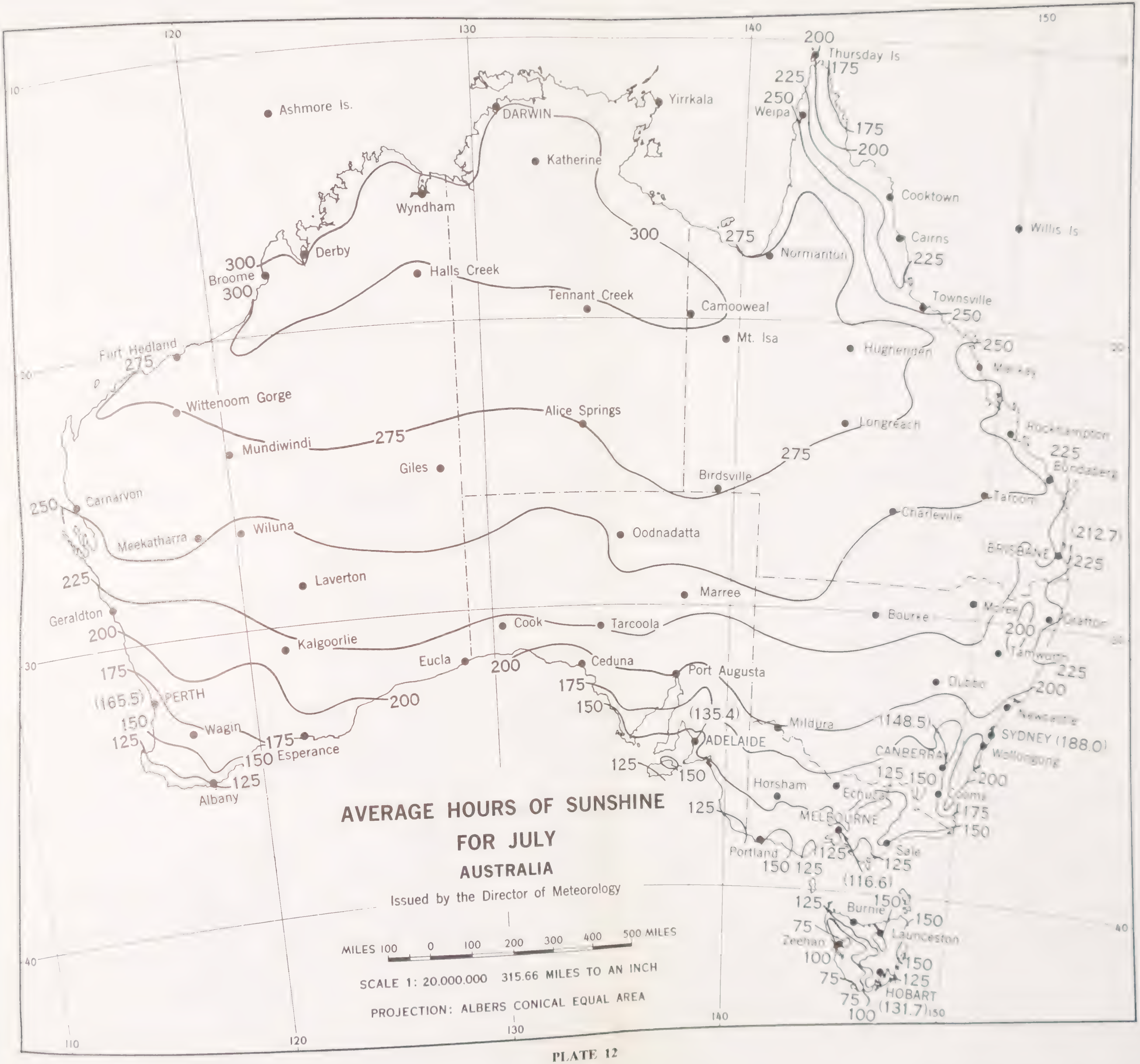
MILES 100 0 100 200 300 400 500 MILES

SCALE 1: 20.000.000 315.66 MILES TO AN INCH

PROJECTION: ALBERS CONICAL EQUAL AREA

Thursday Is.
175
150
Yirrkala
150
DARWIN
Ashmore Is.
Weipa
175
Katherine
175
Cooktown
200
Wyndham
200
225
Derby
175
Normanton
Cairns
225
Willis Is.
Halls Creek
Broome
250
Tennant Creek
Camooweal
Townsville
225
250
Port Hedland
300
275
325
275
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
300
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
325
Charleville
225
Meekatharra
Wiluna
Oodnadatta
BRISBANE
(232.8)
Laverton
350
Marree
250
250
Geraldton
325
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Bourke
325
Eucla
Ceduna
Tamworth
Port Augusta
350
250
275
Dubbo
(323.7)
PERTH
250
Newcastle
300
Wagin
(307.0)
Mildura
SYDNEY
(224.6)
275
275
ADELAIDE
Esperance
Wollongong
250
250
CANBERRA
225
225
250
Albany
Horsham
Echuca
(251.0)
250
Cooma
MELBOURNE
Portland
225
Sale
225
(234.9)
Burnie
250
250
Launceston
Zeehan
250
225
275, 300
200
200
HOBART (239.5)
200
225
10
20
30
40
110
120
130
140
150

PLATE 11


120
130
140
150
10
20
30
40
110
Ashmore Is.
DARWIN
Yirrkala
Katherine
Wyndham
Derby
Broome
300
300
300
Halls Creek
Tennant Creek
Camooweal
Mt. Isa
Normanton
275
Thursday Is
200
175
225
250
Weipa
175
200
Cooktown
Willis Is
Cairns
225
Townsville
250
250
Hughenden
Mackay
Rockhampton
225
Bundaberg
Port Hedland
275
Wittenoom Gorge
Mundiwindi
275
Alice Springs
Giles
Birdsville
275
Longreach
Carnarvon
250
Meekatharra
Wiluna
Oodnadatta
Charleville
Taroom
BRISBANE
(212.7)
225
Laverton
225
Marree
Geraldton
200
Kalgoorlie
Cook
Tarcoola
Bourke
Moree
Grafton
200
Tamworth
225
Eucla
200
Ceduna
Port Augusta
175
150
Dubbo
200
175
(165.5)
PERTH
150
125
Wagin
175
150
Esperance
125
Albany
200
(135.4)
ADELAIDE
Mildura
(148.5)
Newcastle
SYDNEY (188.0)
Wollongong
CANBERRA
125
150
200
Cooma
175
150
125
150
125
Horsham
Echuca
MELBOURNE
Portland
150
125
125
Sale
125
(116.6)
125
150
Burnie
150
75
Zeehan
Launceston
100
150
125
75
HOBART
75
100
(131.7)
150
MILES 100
0
100
200
300
400
500 MILES

AVERAGE HOURS OF SUNSHINE FOR JULY

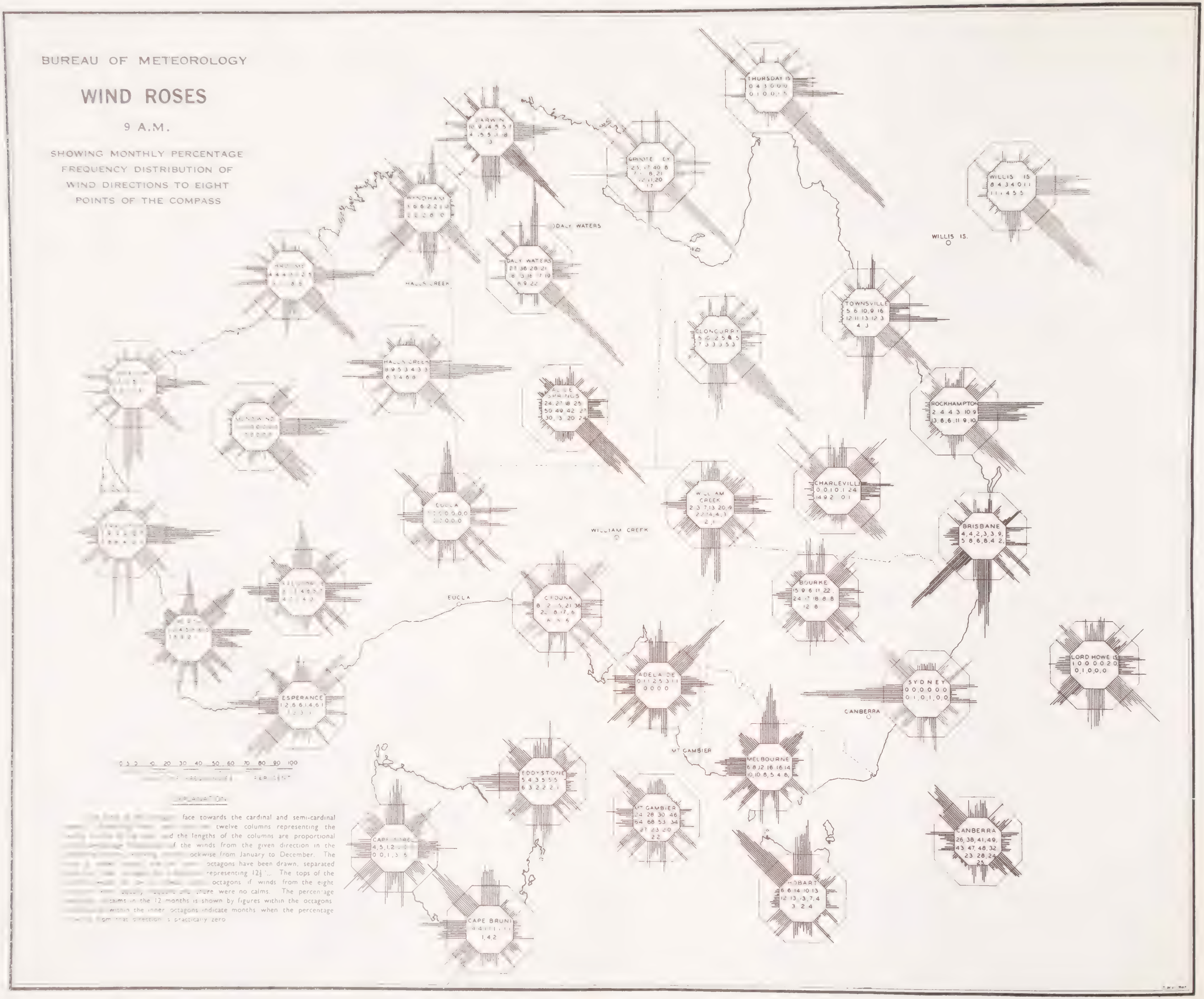
AUSTRALIA

Issued by the Director of Meteorology

SCALE 1: 20,000,000 315.66 MILES TO AN INCH

PROJECTION: ALBERS CONICAL EQUAL AREA

PLATE 12



BUREAU OF METEOROLOGY

WIND ROSES

9 A.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS

THURSDAY IS
0 4 3 0 0 0
0 1 0 0 1 5
DARWIN
GROOTE EYLANDT
WILLIS IS
8 4 3 4 0 1 1
1 1 4 5 5
WYNDHAM
BROOME
DALY WATERS
21 36 28 21
16 3 16 17 19
8 9 22
HALLS CREEK
8 9 5 3 4 3 3
6 3 4 6 8
TOWNSVILLE
5 6 10 9 16
12 11 13 12 3
4 3
CLONCURRY
ROCKHAMPTON
2 4 4 3 10 9
3 6 6 11 9 10
ALICE SPRINGS
24 27 18 25
50 49 42 27
30 13 20 24
CHARLEVILLE
0 0 1 0 1 24
14 9 2 0 1
WILLIAM CREEK
2 3 7 13 20 9
2 2 14 4 3
2 1
BRISBANE
4 4 2 3 3 9
5 8 6 8 4 2
EUCLA
BOURKE
15 9 6 11 22
24 17 18 8 8
12 8
CEDUNA
LORD HOWE IS
1 0 0 0 0 2 0
0 1 0 0 0
ADELAIDE
SYDNEY
0 0 0 0 0 0
0 1 0 1 0 0
CANBERRA
26 38 41 49
43 47 48 32
23 28 24
25
ESPERANCE
1 2 6 6 1 4 6 1
EDDYSTONE
5 4 3 5 5 5
6 3 2 2 2 1
MELBOURNE
6 8 12 16 16 14
10 10 8 5 4 8
MT GAMBIER
24 28 30 46
54 68 53 34
27 23 20
22
CAPE SORELL
4 5 1 2
0 0 1 3 5
HOBART
6 6 14 10 13
12 13 13 7 4
3 2 4
CAPE BRUNY
1 4 2
DALY WATERS
HALLS CREEK
WILLIS IS.
WILLIAM CREEK
EUCLA
CANBERRA
MT GAMBIER
0 5 0 10 20 30 40 50 60 70 80 90 100
PER CENT

EXPLANATION

[illegible] face towards the cardinal and semi-cardinal [illegible] twelve columns representing the [illegible] and the lengths of the columns are proportional [illegible] the winds from the given direction in the [illegible] clockwise from January to December. The [illegible] octagons have been drawn, separated [illegible] representing 12½ %. The tops of the [illegible] octagons if winds from the eight [illegible] were no calms. The percentage [illegible] calms in the 12 months is shown by figures within the octagons [illegible] within the inner octagons indicate months when the percentage [illegible] from that direction is practically zero.

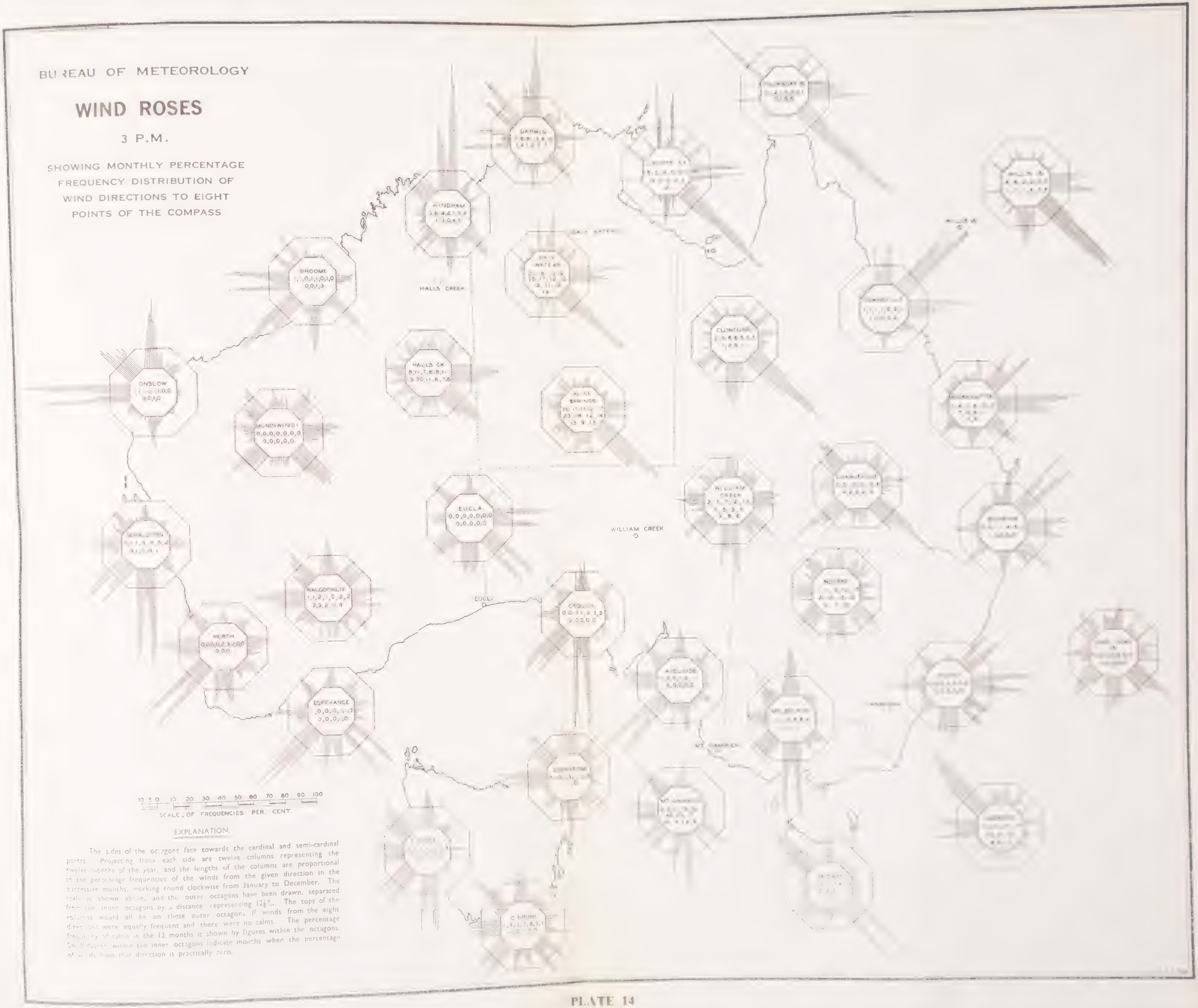
PLATE 13

BUREAU OF METEOROLOGY

WIND ROSES

3 P.M.

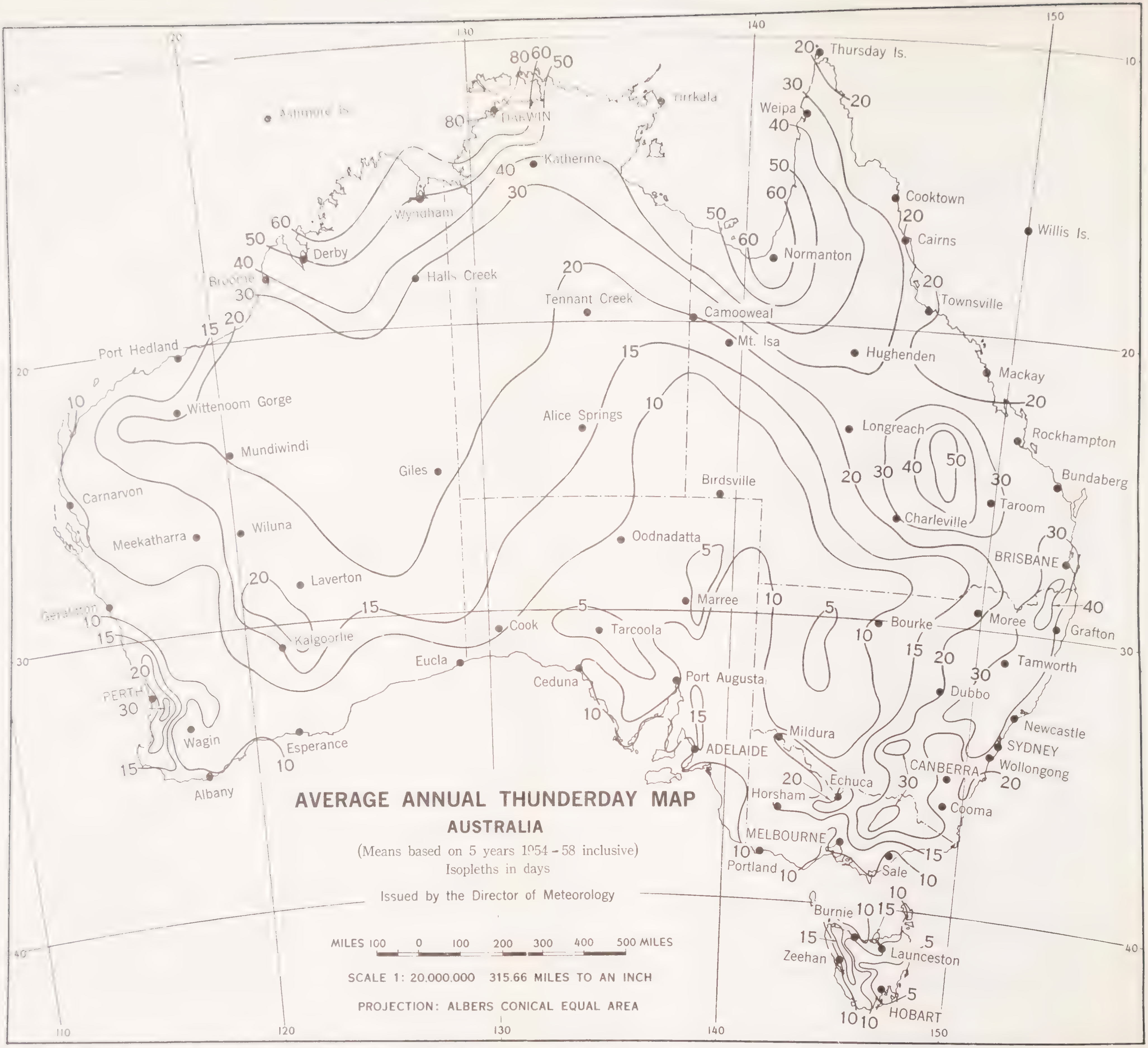
SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS


DARWIN
WYNDHAM
HALLS CREEK
BROOME
0,0,1,3
DALY WATERS
HALLS CK
8,11,7,6,8,11
3,20,11,6,7,6
ONSLOW
MUNDIWINDI
0,0,0,0,0,0,0
0,0,0,0,0
ALICE SPRINGS
13 9 13
CLONCURRY
WILLIS IS
WILLIAM CREEK
EUCLA
0,0,0,0,0,0,0
0,0,0,0,0
WILLIAM CREEK
GERALDTON
KALGOORLIE
EUCLA
CEDUNA
PERTH
ESPERANCE
ADELAIDE
MT. GAMBIER
MELBOURNE
C. BRUNI
10 5 0 10 20 30 40 50 60 70 80 90 100
SCALE OF FREQUENCIES PER. CENT.

EXPLANATION.

The sides of the octagons face towards the cardinal and semi-cardinal points. Projecting from each side are twelve columns representing the twelve months of the year, and the lengths of the columns are proportional to the percentage frequencies of the winds from the given direction in the successive months, working round clockwise from January to December. The scale is shown above, and the outer octagons have been drawn, separated from the inner octagons by a distance representing 12½%. The tops of the columns would all be on these outer octagons if winds from the eight directions were equally frequent and there were no calms. The percentage frequency of calms in the 12 months is shown by figures within the octagons. Small dashes within the inner octagons indicate months when the percentage of winds from that direction is practically zero.

PLATE 14



AVERAGE ANNUAL THUNDERDAY MAP

AUSTRALIA

(Means based on 5 years 1954 – 58 inclusive)

Isopleths in days

Issued by the Director of Meteorology

SCALE 1: 20,000,000 315.66 MILES TO AN INCH

PROJECTION: ALBERS CONICAL EQUAL AREA

MILES 100 0 100 200 300 400 500 MILES
Thursday Is.
Weipa
Yirrkala
Ashmore Is.
DARWIN
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt. Isa
Normanton
Cooktown
Cairns
Townsville
Willis Is.
Hughenden
Mackay
Rockhampton
Longreach
Bundaberg
Taroom
Charleville
BRISBANE
Grafton
Moree
Bourke
Tamworth
Dubbo
Newcastle
SYDNEY
Wollongong
CANBERRA
Cooma
Sale
Echuca
Mildura
Horsham
MELBOURNE
Portland
ADELAIDE
Port Augusta
Ceduna
Tarcoola
Marree
Oodnadatta
Birdsville
Alice Springs
Giles
Cook
Eucla
Port Hedland
Wittenoom Gorge
Mundiwindi
Carnarvon
Meekatharra
Wiluna
Laverton
Kalgoorlie
Geraldton
PERTH
Wagin
Albany
Esperance
Burnie
Zeehan
Launceston
HOBART
80
60
50
40
30
20
15
10
5
110
120
130
140
150
10
20
30
40

PLATE 15

HEAVY RAINFALLS TO 1965, INCLUSIVE—*continued*

NORTHERN TERRITORY

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
Brocks Creek	24 Dec. 1915	14.33	Borroloola	7 Jan. 1940	12.68
Groote Eylandt	9 Apr. 1931	14.29	Borroloola	4 Feb. 1938	12.00
Borroloola	14 Mar. 1899	14.00	Bathurst Island Mission	7 Apr. 1925	11.85
Timber Creek	5 Feb. 1942	13.65	Darwin	7 Jan. 1897	11.67
Cape Don	13 Jan. 1935	13.58			

SOUTH AUSTRALIA

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
Ardrossan	18 Feb. 1946	8.10	Port Victoria	18 Feb. 1946	7.08
Carpa	18 Feb. 1946	7.83	Wynbring	28 Feb. 1921	7.00
Edithburgh	18 Feb. 1946	7.46	Mannum	25 Jan. 1941	6.84
Hesso	18 Feb. 1946	7.36	Wirrabarra Forest Reserve	7 Mar. 1910	6.80
Maitland	18 Feb. 1946	7.21	Cape Willoughby	18 Feb. 1946	6.80
Wilmington	1 Mar. 1921	7.12			

QUEENSLAND

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
Crohamhurst	3 Feb. 1893	35.71	Springbrook	21 Feb. 1954	27.04
Finch-Hatton	18 Feb. 1958	34.58	Mt. Jukes	18 Feb. 1958	26.40
Port Douglas	1 Apr. 1911	31.53	Buderim Mountain	12 Jan. 1898	26.20
Yarrabah	2 Apr. 1911	30.65	Byfield (Parnass Vale)	3 Mar. 1949	25.43
Mt. Charlton	18 Feb. 1958	29.95	Flat Top Island	21 Jan. 1918	25.18
Mooloolah	3 Feb. 1893	29.11	Landsborough	3 Feb. 1893	25.15
Kuranda	2 Apr. 1911	28.80	Harvey Creek	31 Jan. 1913	24.72
Calen	18 Feb. 1958	27.84	Kuranda	1 Apr. 1911	24.30
Harvey Creek	3 Jan. 1911	27.75	Babinda (Cairns)	2 Mar. 1935	24.14
Sarina	26 Feb. 1913	27.75	Goondi	30 Jan. 1913	24.10
Plane Ck. (Mackay)	26 Feb. 1913	27.73	Banyan (Cardwell)	12 Feb. 1927	24.00
Deeral	2 Mar. 1935	27.60	Carruchan	24 Jan. 1934	24.00
Yarrabah Mission	24 Jan. 1916	27.20	Tully Mill	12 Feb. 1927	23.86
Springbrook	24 Jan. 1947	27.07			

NEW SOUTH WALES

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
Dorrigo	24 June 1950	25.04	Tallowood Point	21 Feb. 1954	19.87
Cordeaux River	14 Feb. 1898	22.58	Buladelah	16 Apr. 1927	19.80
Morpeth	9 Mar. 1893	21.52	Orara Upper	24 June 1950	19.80
Broger's Creek	13 Jan. 1911	20.83	Dorrigo (Townsend)	11 July 1962	19.18
South Head (Sydney Harbour)	16 Oct. 1844	20.41	Tallowood Point	24 June 1950	18.82
,, ,,	29 Apr. 1841	20.12	Madden's Creek	13 Jan. 1911	18.68
Mount Pleasant	5 May 1925	20.10	Condong	27 Mar. 1887	18.66
Broger's Creek	14 Feb. 1898	20.05	Candelo	27 Feb. 1919	18.58
Towamba	5 Mar. 1893	20.00	Tallowood Point	22 Jan. 1959	18.55
Viaduct Creek	15 Mar. 1936	20.00	Mt. Kembla	13 Jan. 1911	18.25
			Bega	27 Feb. 1919	17.88

HEAVY RAINFALLS TO 1965, INCLUSIVE—*continued*

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
AUSTRALIAN CAPITAL TERRITORY					
Jervis Bay	29 Apr. 1963	7.15	Uriarra (Woodside)	27 May 1925	6.57
Cotter Junction	27 May 1925	7.13	Land's End	27 May 1925	6.35
Canberra (Acton)	27 May 1925	6.84			
VICTORIA					
Balook	18 Feb. 1951	10.81	Blackwood (Greenhill)	26 Jan. 1941	8.98
Hazel Park	1 Dec. 1934	10.50	Tambo Crossing	13 July 1925	8.89
Kalorama	1 Dec. 1934	10.05	Corinella	28 June 1948	8.75
Cann River	16 Mar. 1938	9.94	Erica	1 Dec. 1934	8.66
Tonghi Creek	27 Feb. 1919	9.90	Mt. Buffalo	6 June 1917	8.53
Cann River	27 Feb. 1919	9.56	Korumburra	1 Dec. 1934	8.51
Tanybryn	7 June 1952	9.16			
Olinda	1 Dec. 1934	9.10			
TASMANIA					
Mathinna	5 Apr. 1929	13.25	Riana	5 Apr. 1929	11.08
Cullenswood	5 Apr. 1929	11.12	Triabunna	5 June 1923	10.20

Snow and hail. For varying periods from late autumn to early spring snow usually covers the ground to a great extent on the Australian Alps above a level of about 4,500 to 5,000 feet, where in both New South Wales and Victoria ski-ing resorts operate throughout the season.

In Tasmania also the highlands are frequently covered above the 3,500 feet level for extended periods of the winter. There are, however, some years when snowfalls are much lighter than normal and even fail completely. Light snow has been known to fall occasionally as far north as the New England plateau in New South Wales (latitude 31° S.), and in exceptional seasons much of the dividing range from Victoria to Toowoomba (Queensland) has been covered above a level of about 4,000 feet. In ravines around Mount Kosciusko small areas of snow may persist throughout the summer after a heavy winter fall. This winter snowfall of south-eastern Australia is important in aiding the reliable flow of many streams which are utilised in the hydro-electric schemes of the Snowy Mountains, northern Victoria, and Tasmania. Snowfall at low terrain elevations occurs from time to time, particularly in Tasmania and Victoria, but falls are usually light and rarely lie more than a few days.

Hail is most frequent in winter and spring along the south-eastern coastal region of the continent and in Tasmania, where it is usually of a relatively small size. Summer storms, however, which are quite frequent, particularly in the highland plateau regions of eastern Australia, often produce stones of large size and of destructive intensity. Very large stones capable of piercing light gauge galvanised iron are reported from time to time, and damage to fruit crops in south-eastern Australia from large hail stones is quite frequent.

Floods. In general, flooding in Australia is most pronounced on the shorter streams flowing from the Great Dividing Range into the Pacific Ocean along the seaboard of Queensland and New South Wales. These floods are particularly destructive on the more densely populated coast of New South Wales. The chief rivers in this area are the Tweed, Richmond, Clarence, McLeay, Nepean, Hawkesbury, Hunter, and Shoalhaven, all of which experience quite frequent and considerable flooding. These floods occur chiefly in summer but may occur at any time of the year.

The great Fitzroy and Burdekin river systems in Queensland are also subject to floods during the summer wet season, while much of the heavy monsoon rain in northern Queensland flows southward through the normally dry channels of the network of rivers draining into Lake Eyre. This water may cause extensive floods over a vast area, but it is soon lost by seepage and evaporation and rarely reaches the lake in any quantity. The Condamine and the other tributaries of the Darling also carry considerable volumes of water south through western New South Wales to the Murray, and flooding along their courses occurs from time to time.

Flooding also occurs from time to time, usually in autumn, winter and spring, in the Murray-Murrumbidgee system of New South Wales and Victoria and on the smaller coastal streams of southern Victoria. In Tasmania, flooding of the north coast streams, particularly the South Esk system, is common in the same seasons. In South Australia some flooding has occurred in the lower reaches of the Murray owing to rainfall as far away as Queensland and south-eastern New South Wales. In the north of Western Australia and the Northern Territory, flooding of the coastal streams occurs frequently in summer but is not of such economic importance as the flooding of the eastern coastal streams of the continent, where many localities are more vulnerable to damage.

Temperature

The accurate measurement of the temperature of the air is not easy, as temperature sensitive devices also absorb radiant heat or can lose heat by radiation. Following international practice, air temperature measurements in Australia are made by thermometers freely exposed in a double louvred box (the Stevenson screen). Maximum and minimum air temperatures during each day are measured by means of special thermometers exposed in the Stevenson screen. The minimum air temperature at the surface of the earth as the ground cools at night by outgoing radiation (the terrestrial or grass minimum) is also measured at many stations. Such temperature recordings measure a theoretical physical quantity which bears only an indirect relation to the comfort or discomfort a person feels. Temperature measurements alone may be regarded only as a first approximation to a measurement of personal comfort. The actual degree of personal comfort is related to a number of meteorological factors such as air temperature, wind speed, humidity, exposure to the sun's rays, and the temperature of surrounding surfaces (i.e. the radiation balance of the body).

In addition to these quantities, which are all physically measurable, a number of personal quantities are involved which vary greatly from person to person and which cannot be precisely expressed, e.g. race and acclimatisation, age and state of health, type of clothing, and degree of physical activity in work and recreation. Conditions thus vary greatly for a particular individual even in a fixed location, so that it is difficult to describe general comfort variability uniquely throughout a region as varied climatically as Australia. A number of indexes which attempt to incorporate some of the factors described above have been used experimentally from time to time, and further research continues on this very difficult problem. Generally speaking, there is an increase in discomfort northwards within the tropical regions of Australia in summer, owing to the heat and high absolute humidity which reach a maximum in the extreme north of the continent. Such conditions are, however, ameliorated to a large extent in highland areas such as the Atherton Tableland in Queensland. No part of Australia is uncomfortably hot in winter, and only in a small area of the Australian Alps and highland Tasmania does bodily strain due to cold exist in winter. The history of the settlement of the northern regions of Queensland and the Northern Territory indicates that with accelerating development of studies and experience in the arrangement of living and working accommodation, clothing, and general way of life, the effects of extremes of climate can be minimised.

For some further discussion of the problems of temperature and comfort conditions reference may be made to Ashton, H. T., *Meteorological Data for Air Conditioning in Australia*, Bureau of Meteorology Bulletin No. 47 (1964).

Average seasonal temperature distribution. Plates 5 to 8 show the normal daily maximum and minimum temperatures for January and July, which may be taken as indicative respectively of the summer and winter seasons in Australia. Further detailed temperature data are presented on pages 41–50 for the capital cities and more important country towns of the Commonwealth.

On the basis of average annual mean temperatures, and latitude for latitude, Australia is somewhat cooler than the other land masses of the southern hemisphere and considerably cooler than the same latitudes in the large continental areas of the northern hemisphere. This is due to the insular nature of Australia and the stronger general circulation of the atmosphere in the southern hemisphere resulting in the transport of higher latitude (cooler) air into the subtropical regions.

July is the month with the lowest mean temperature in all parts of the continent, while the month with the highest mean temperature varies from February in Tasmania and southern Victoria to December in the northern part of the continent and November in Darwin. The lateness of the month of highest average temperature in the extreme south of the continent is due in part to the effect of the Southern Ocean, where the sea surface temperature reaches its maximum in February. The cooler period of the late summer in the north is due largely to increased cloudiness associated with the inflow of north-west winds with the onset of the monsoon season.

In January average maximum temperatures exceed 95° F. over a vast area of the interior of the continent, and over large areas exceed 100° F. The hottest part of Australia is situated in the north of Western Australia around the Marble Bar and Nullagine area, where the daily maximum screen temperature during the summer frequently exceeds 100° F. for weeks at a time.

The marked change of maximum temperature in summer with distance from the sea, in areas close to the coasts, particularly along the Great Australian Bight and the Indian Ocean coast of Western Australia, is due to the penetration inland of the vigorous sea breezes which are initiated by the considerable temperature contrast between land and sea surface temperatures. The 75° F. isotherm of January mean maximum temperature skirts the southern coast of the continent from south-western Western Australia to Gippsland.

In January the mean minimum temperatures in the tropics, except for some highland regions, exceed 72° F., with a gradual decrease southward to values of 55° F. in Victoria and 50° F. in Tasmania. Highland regions in the south have mean values of 45° F. and lower. In July a more regular latitudinal distribution of mean maximum temperature is evident, only the extreme north of the continent having mean maxima higher than 80° F. Values lower than 60° F. are general over the south-eastern part of the continent, with mean maxima falling below 40° F. in small alpine areas. Average night minimum temperatures in July fall below 45° F. in areas south of the tropics and away from the coast. Alpine regions again record the lowest temperatures with some areas experiencing means lower than 25° F.

Extreme variation and daily range. Only at a few inland places in Australia does the absolute range of temperature (i.e. the range from the highest maximum to the lowest minimum) exceed 100° F. Generally it is in the range 70° F. to 90° F. in the inland areas and somewhat less on the coasts. The highest temperature recorded in Australia was 127.5° F. at Cloncurry (Queensland) on 16 January 1889 and the lowest −8° F. at Charlotte Pass in the southern Alps on 14 July 1945 and again on 22 August 1947. The world record maximum temperature is 136° F. at Azizia (Tripoli) on 13 August 1922 and the world record minimum temperature −126.9° F. at Vostok on the Antarctic plateau on 24 August 1960.

High temperatures. Heat waves with a number of successive days higher than 100° F. are relatively common in many parts of Australia. With the exception of the north-western coast of Western Australia, however, most coastal areas do not usually experience more than a few days in succession of such conditions. The frequency of such conditions increases inland, and periods of up to twenty days have been recorded over most of the settled areas. This figure increases in western Queensland and north-western Western Australia to more than sixty days in places. The central part of the Northern Territory and the Marble Bar-Nullagine area of Western Australia have recorded the most prolonged heat waves for the Australian region. The longest consecutive period of daily maxima greater than 100° F. was 160 consecutive days recorded in Marble Bar during the summer of 1923–24.

Frosts. Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.), and a ground frost is regarded as having occurred when the grass thermometer has fallen below 30.4° F. However, as terrestrial minima are not recorded at all stations, it is usual for statistical purposes to regard the registration of a screen thermometer of 36° F. as indicating a 'light' frost. A map showing frequency of days with screen minima higher than 36° F. (i.e. the frost free period) is reproduced in plate 9. A 'heavy' frost is taken as a screen reading of less than 32° F. A 'black' frost occurs with a combination of low temperature and low humidity, and, although frost crystals are not observed on the ground, damage takes place to the plant cells by the freezing and expansion of the moisture they contain.

The frequency of frost depends largely on altitude, latitude, and proximity to the sea, and locally, to a very large extent, on even minor variations in contour of the land. The parts of Australia which are most subject to frost are the eastern highlands from north-eastern Victoria to the western Darling Downs in southern Queensland. Most stations in this region experience more than ten nights a month with readings of 32° F. or under for three to five months of the year. On Tasmania's Central Plateau similar conditions occur for three to six months of the year. Heavy frosts are comparatively infrequent in Western Australia, except in parts of the south and south-west. In South Australia frosts are most frequent in the agricultural areas of the south-east.

Frosts may occur within a few miles of the coast over the whole continent except the Northern Territory and most of north Queensland. Regions subject to frost at all times of the year comprise the whole of Tasmania, the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part of south-western Western Australia. Over most of the interior of the continent, and on the highlands of Queensland as far north as the Atherton Plateau, frosts commence in April and end in September, but they are infrequent in these months. Minimum temperatures below 32° F. are experienced in most of the sub-tropical interior in June and July.

For further details of frost conditions in Australia reference should be made to Foley, J. C., *Frost in the Australian Region*, Bureau of Meteorology Bulletin No. 32 (1945).

Humidity and saturation deficit

The amount of water vapour in the atmosphere is determined mainly by the temperature. The higher the temperature the more water vapour may be contained in a given mass of air. Vapour pressure is the pressure exerted by the water vapour of the atmosphere. At any given temperature there is a definite upper limit to the amount of water that can exist as vapour in the air. When this limit is reached the air is said to be saturated and the pressure of the water vapour is the saturation vapour pressure. Both these quantities may be expressed in millibars or in inches of mercury. The usual measure of humidity or moistness of the air is the relative humidity (which is measured by means of wet and dry bulb screen thermometers). This term is applied to the ratio of the existing vapour pressure to the saturated vapour pressure at the existing temperature and expressed as a percentage. However, from the point of view of physical comfort and in many industrial and agricultural problems, the more important measure of atmospheric water vapour is the absolute humidity or the actual mass of moisture contained in a fixed mass of air.

The annual variation of vapour pressure for regions outside the tropics closely follows that of temperature. However, the mean relative humidity in the temperate regions is generally highest in winter and lowest during the summer. In northern Australia the highest relative humidity occurs during the rainy summer season. The relative humidity variation during the day closely follows the diurnal variation of temperature, being highest with low temperatures and lowest with high temperatures. The relative humidity at 9 a.m. for Australian conditions may be considered as a close approximation to the mean for the whole day. In the tables for the capital cities, pages 41–8, the mean monthly vapour pressure and relative humidity for 9 a.m., together with the monthly extremes, are listed. The order of the stations in descending values of mean annual vapour pressure at 9 a.m. is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, and Hobart, while the annual mean of the 9 a.m. relative humidities diminishes in the order Darwin, Sydney, Hobart, Melbourne, Brisbane, Canberra, Perth, and Adelaide.

Another method of humidity measurement which may be employed is the saturation vapour deficit. This may be defined as the difference between the saturation vapour pressure and the actual vapour pressure both referred to the dry bulb temperature. It is thus a measure of the drying power of the air and like vapour pressure may be expressed in millibars or inches of mercury.

In January the mean saturation deficit at the mean temperature for the month has a maximum value of over 0.90 inches in the central parts of Western Australia and in south-eastern Queensland. Gradual decreases occur towards the coast, where values close to the north, east, and south coastlines are around 0.20 inches. On the western coast values are somewhat higher, and a strong gradient exists in the saturation deficit in the narrow region bordering the Indian Ocean. In July the variation is less, with maxima of 0.40 inches in the dry north of the Northern Territory and Western Australia, slowly decreasing generally to the south, with values over most of the south-east and extreme south-west of the continent being less than 0.10 inches. Extremely low values (less than 0.025 inches) exist in July over the highlands of south-eastern Australia and Tasmania.

Evaporation

Evaporation is a process which results in the transfer of water vapour from the surface of the earth into the atmosphere and takes place from free water surfaces, from moist soil, and by the process of transpiration from plants. The figures quoted in this section, however, refer to evaporation as measured from an Australian standard evaporation tank. This instrument consists of a copper tank surrounded by a 6-inch water jacket sunk in the ground to a depth of 36 inches and exposing at ground level a water surface 36 inches in diameter from which the evaporation loss of water is measured. Earlier estimates of Australian evaporation data were supplemented by calculations based on an empirical formula dependent on saturation deficit, but more recent measurements have enabled charts of monthly and annual evaporation to be constructed wholly from observational records. Such a map is plate 10. The rate and quantity of evaporation in any territory are influenced by the net radiation, prevailing temperature, vapour pressure, and turbulent diffusion by wind.

In Australia the study of evaporation is of great importance, since in its drier regions water conservation must be practised by the use of tanks and dams. The magnitude of the economic loss by evaporation may be appreciated from plate 10, which shows that the yearly amount varies from 20 inches over the highland areas of central Tasmania to more than 130 inches in the northern and north-western part of South Australia.

Over an area of some 70 per cent of the continent, comprising most inland districts and extending to the coast in the north-west of Western Australia and to the head of the Great Australian Bight, the rainfall does not exceed the evaporation loss in any month of the year. The central and north-western portions of the continent experience evaporation far in excess of their rainfall. Vegetation over these areas is characterized by acacia, scrub steppe, and arid scrub, while many areas are merely sand hills and stony desert. Over many of the drier areas, however, particularly in the inland areas of south-eastern Australia, the loss of rainfall by evaporation is made good to some extent by the development of irrigation schemes. Some of these schemes, such as those at the Murrumbidgee Irrigation Area in New South Wales and at Mildura in Victoria and Renmark in South Australia, have been very successful. The Snowy Mountains Hydro-electric Scheme will also result in the large-scale supply of water from the south-eastern highlands of Australia for use in the drier areas to the west of the ranges in New South Wales and Victoria. The future development of such schemes as these holds promise for the reclamation of many marginal areas in Australia, which because of low rainfall and high evaporation are at present of little economic value.

Since the loss by evaporation depends largely on the net radiation absorbed and consequently on the extent of the exposed area, tanks and dams so designed that the surface area shall be a minimum are advantageous. Further, the more protected they are from the direct rays of the sun and from winds by means of suitable tree planting the less will be the evaporation loss. The Mansfield process for the treatment of tanks and dams by a mono-molecular chemical film which materially reduces evaporation is a recent development which is already giving beneficial results, particularly on large water storage areas. Such improvements are of considerable importance to the pastoralists of the drier regions of Australia and to water supply authorities.

Further information on evaporation may be found in Hounam, C. E., *Evaporation in Australia*, Bureau of Meteorology Bulletin No. 44 (1961).

Sunshine and cloud

The proportion of the sky covered by cloud is of considerable meteorological and climatological importance. A cloud cover inhibits both incoming and outgoing radiation and thus profoundly affects the temperature distribution and other factors at the earth's surface. Cloud amount is measured in eighths of the sky covered.

In Australia the seasonal changes in cloudiness correspond closely to that of rainfall. In the southern or more temperate parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. A particularly strong annual periodicity exists in the monsoonal regions of northern Australia, where it is heavily clouded during the summer wet season and practically cloudless during the winter 'dry'. Cloudiness is higher near coasts and on the windward slopes of the mountains of eastern Australia and is least over the dry interior parts of the continent.

A close relationship exists between cloud amount and number of sunshine hours, and it is possible to estimate from cloud data the equivalent number of sunshine hours over a given period. These data can be incorporated with records of direct measurement of sunshine hours, and approximate distribution maps produced for Australia. Maps of the mean sunshine distribution for January and July are reproduced in plates 11 and 12 and indicate the main features of the variation over Australia in these months.

Except for Tasmania and a narrow fringe bordering the southern, eastern and northern coasts, the greater part of the continent receives more than 3,000 hours of sunshine each year, and in Central Australia and the mid-western coast of Western Australia, totals in excess of 3,500 hours occur. The extreme south coast receives in the main 2,000 to 2,500 hours annually, while the east coast regions of New South Wales and Queensland receive 2,500 to 3,000 hours. A minimum of less than 1,750 hours occurs on the west coast and highlands of Tasmania.

Mean amounts of cloud for each month at the capital cities are included in the tables on pages 41–8 as are the mean daily hours of sunshine. The latter figure is a good single measure of the relative climatic characteristics of the individual cities for different months of the year.

Wind

Australia lies in those latitudes of the southern hemisphere where it is influenced largely by two wind systems:

(*a*) the south-east trade winds blowing on the equatorial side of the mid-latitude anticyclones; and

(*b*) the westerlies south of the mid-latitude anticyclones in which successive low pressure systems move eastward over the Southern Ocean.

The only pronounced seasonal variations of atmospheric pressure in the middle and high latitudes of the southern hemisphere are related to the latitudinal shift in the axes of the subtropical high pressure systems and to the change in the tracks of the migratory anticyclones. The latter systems move generally from west to east in the Australian region between the semi-permanent oceanic anticyclones of the Indian and Pacific Oceans. The mean path of these systems lies over southern Australia during the summer but moves northwards during the winter with the thermal equator. The movement is only of a few degrees of latitude but it is of very great importance to the climate of the Australian continent. During the summer months, when the anticyclones move on a more southerly track, the south-east trades affect the whole coast of eastern Australia north of around latitude 30° S., the westerlies retreating to higher latitudes, and conditions are more settled over southern Australia which then lies close to the axis of the anticyclones. In winter the anticyclones move further north, the trades affect only the northern parts of the continent, and southern Australia is exposed to the westerlies of the Southern Ocean.

In summer, with the retreat of the anticyclones to the south, the whole of northern and north-western Australia is exposed initially to light wind systems, and then during the period from December to April to the effects of the north-west monsoon. This process, which is associated with an inflow of north-west winds and intensive rains, is not as regular or persistent as the south-west monsoon of south-east Asia. However, it is a sufficiently regular feature of the climate of northern Australia to be designated as the north-west season, or, as it is best known in the area, 'the wet'. Its influence affects areas as far south as central Queensland, but southern Queensland and the area east of the Great Dividing Range are largely still under the influence of the south-east trades. Fringe or marginal areas on the southern limits of the monsoonal penetration over the continent have a shorter and more uncertain 'wet' season, which in some years fails to appear at all. With the northward advance of the anticyclones in autumn, the monsoon gives way again to the trades, and 'the dry' of northern and north-western Australia commences.

The general features of these wind patterns may be seen in the wind rose diagrams of plates 13 and 14. It is important, however, to note the dynamic nature of the atmosphere, and that the continual growth, decay and motion of the pressure systems result in a wide diversity of wind-flow types. Descriptions of wind conditions for particular geographical areas and seasons can thus be only of a very generalised kind. Further, local features can also be imposed on the overall wind pattern — channelling of winds due to topography (e.g. the high frequency of north-west winds in Hobart) and the marked summer sea breeze characteristics of most of the Australian coast, particularly near the Great Australian Bight as shown in the diagrams of 3 p.m. wind frequencies.

Storms and tropical cyclones

In general there are two types of weather systems in Australia which produce very strong winds and heavy rainfalls over large areas of the continent:

(*a*) the active depressions which move westwards over the Southern Ocean; and

(*b*) the tropical cyclones or hurricanes of north-eastern and north-western Australia.

During the winter the southern shores of the continent are subject to the deep depressions of the southern low pressure belt. They are felt most severely over the south-west of Western Australia, the south-east of South Australia, southern Victoria, and Tasmania, and may move inland in all these regions bringing strong winds and heavy rainfall. Further extensions of this type of system frequently develop close to the coast of New South Wales, often bringing severe weather to this region and to southern Queensland. These are generally known as 'east coast lows'.

The frontal systems (i.e. the narrow zones characterised by cloud and bad weather separating two air masses of different density) which are associated with these depressions vary widely in character. A common type in south-east Australia is a cold front located in a ∧ shaped trough. Such a system usually brings very strong north to north-west winds in advance of the front with a very abrupt backing of the wind to colder west to south-westerly winds after the frontal passage. Such frontal passages are, in their most severe form, associated with thunderstorms and line squalls, heavy rain, and a change to cold winds and showers. These violent changes with the passage of a cold front and strong southerly winds frequently affect the New South Wales coast as far north as Newcastle during the winter, and are popularly known as 'southerly busters'.

The most extensive rains of inland Australia occur when moist tropical air which has moved inland is lifted by convergence ahead of a slow moving colder air mass moving from the southern Ocean. The coast of Queensland, particularly the section from Cooktown to Mackay and the adjacent waters, is subject to visitations by tropical cyclones (the 'hurricanes' of the Caribbean and 'typhoons' of the China Sea). These destructive systems can affect this region from December to April, normally forming in the Coral Sea, moving south-west close to the coast and then passing away to the south-east into the Pacific. They may, however, cross the coast from time to time and bring torrential rain and violent winds (often more than 100 mph) to the coastal regions.

Similar systems affect the north-west coast of Western Australia where they bear the local name of 'willy willies', a name which is, however, often used generally in Australia for minor local whirlwinds or dust devils. The season in this region generally lasts from November to April, the storms originating in the Timor or Arafura Seas travelling usually south-west and approaching the coast most commonly between latitudes 20° S. and 22° S. Thence the systems may move southward following the coast, or sometimes cross inland bringing high rainfalls to the otherwise dry interior of the continent. A further region which is affected somewhat less frequently by tropical cyclones is the coast of Arnhem Land in the Northern Territory and the waters and coasts of the Gulf of Carpentaria.

Tropical cyclones, in general, soon lose their intensity on crossing from sea to land, but although the wind force rapidly abates, they are still capable of producing the heavy rainfall which leads to flooding of coastal rivers, damage to stock and property, and general disruption of transport.

Thunderstorms which bring local heavy rain and strong winds are common to most of Australia. They are also of particular importance because of the lightning damage which they cause to power transmission lines, and have been extensively studied for the purpose of siting electrical installations as far as possible in areas of low thunderstorm occurrence. Plate 15 shows the number of days annually on which thunder is heard, which is a better observational criterion than lightning observed. The region of maximum thunderstorm activity is the extreme north-west of the continent and the region south-east of the Gulf of Carpentaria. In the more settled areas maximum thunderstorm occurrence is in central western and south-eastern Queensland and the highland areas of New South Wales. The minimum number of storms occur over the interior of South Australia, western New South Wales, and eastern Tasmania.

Climatological tables

The averages and extremes for a number of elements which have been determined from long series of observations at the Australian capitals up to and including the year 1965 are given in the following pages, together with more limited data for the larger country towns of the Commonwealth. The following points apply throughout.

(*a*) Where records are available, prevailing winds have been determined over a standard period of thirty years from 1911 to 1940.

(*b*) Other averages and extremes, including evaporation, temperature and rainfall records for which thirty years normals have been published for a number of years past, have been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

CLIMATOLOGICAL DATA: PERTH, WESTERN AUSTRALIA

(Lat. 31° 57′ S., Long. 115° 51′ E. Height above M.S.L. 210 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 71 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(*a*)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction: 9 a.m.	Prevailing direction: 3 p.m.				
No. of years of observations.	81	30(*b*)	66	53	30(*b*)	30(*b*)	67	69	30(*b*)	30(*b*)
January	29 904	10.9	26.3 *27/98*	50	E	SSW	10 29	2	2.3	14
February	29 915	10.7	21.5 6/08	54	ENE	SSW	8 65	1	2.5	13
March	29 980	10.1	21.5 6/13	70	E	SSW	7.56	2	2.8	12
April	30 060	8.5	31.5 25/00	63	ENE	SSW	4 65	1	3.4	9
May	30 060	8.4	27.3 29/32	74	NE	WSW	2.78	3	4.3	6
June	30 057	8.4	30.2 17/27	80	N	NW	1.83	2	4.7	5
July	30 086	8.8	33.5 20/26	85	NNE	W	1.79	2	4.5	5
August	30 083	9.4	31.9 15/03	97	N	WNW	2.42	1	4 5	6
September	30 072	9.4	28.5 11/05	68	ENE	SSW	3.49	1	3 9	8
October	30 033	10.0	26.7 6/16	65	SE	SW	5.36	1	3.8	8
November	29 989	10.7	25.7 *18/97*	63	E	SW	7 55	1	3.1	9
December	29.924	11.0	25.6 6/22	64	E	SSW	9.59	2	2.6	13
Year: Totals	..	..	..	..	..	..	65.96	19	..	108
Year: Averages	30.014	9.7	..	..	E	SSW	..	..	3.5	..
Year: Extremes	..	..	33.5 20/7/26	97	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Standard thirty years normal (1911–1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	69	69	69	69	69	69	63(*a*)	67	68
January	85.1	63.5	74.3	110.7 29/56	48.6 20/25	62.1	177.3 22/14	39.5 20/25	10 4
February	85.5	63.8	74.6	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	10 0
March	82.0	61.6	71.8	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	8 8
April	76.1	57.2	66.6	99.7 9/10	39.3 20/14	60.4	157.0 8/16	30 8 26/60	7.3
May	69.1	52.7	60.9	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25 0 31/64	5 8
June	64.4	49.7	57.0	81.7 2/14	34.9 22/55	46.8	135.5 9/14	25.9 27/46	4 8
July	62.9	47.9	55.4	76.4 21/21	34.2 7/16	42.2	133.2 13/15	25.1 30/20	5.2
August	64.1	48.3	56.2	82.0 21/40	35.4 31/08	46.6	145.1 29/21	26.7 24/35	6.1
September	66.8	50.1	58.4	90.9 30/18	36.7 6/56	54.2	153.6 29/16	27.2 (*b*)	7 1
October	69.8	52.4	61.1	99.0 26/61	40.0 16/31	59.0	161.2 19/54	29.8 16/31	8 1
November	76.1	56.7	66.4	104.6 24/13	42.0 1/04	62.6	167.0 30/25	35.0 3/47	9.5
December	81.1	60.7	70.9	107.9 20/04	47.5 29/57	60.4	168.8 11/27	38.0 29/57	10.4
Year: Averages	73.6	55.4	64.5	..	..	..	..	..	7.8
Year: Extremes	..	..	..	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.0 31/5/64	..

(*a*) Records discontinued 1963. (*b*) 8/1952 and 6/1956.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	30(*a*)	30(*a*)	69	69	90	90	90	90	90	69
January	0.438	51	63	41	0 33	3	2.17 1879	Nil (*b*)	1.74 *27/79*	0
February	0.434	51	65	43	0.44	3	6.55 1955	Nil (*b*)	3.43 17/55	0
March	0.432	57	66	46	0 80	4	5.71 1934	Nil (*b*)	3.03 9/34	1
April	0.397	61	75	51	1 80	7	5.85 1926	Nil 1920	2.62 30/04	1
May	0.365	70	81	61	4.97	14	12.13 1879	0.77 1949	3.00 17/42	1
June	0.337	75	85	68	7 28	17	18.75 1945	2.16 1877	3.90 10/20	2
July	0.322	76	88	69	6.89	18	16.73 1958	2.42 1876	3.00 *4/91*	1
August	0.316	71	83	62	5.60	18	12.53 1945	0.46 1902	2.91 14/45	1
September	0.341	66	75	58	3 17	14	7.84 1923	0.34 1916	1.82 4/31	0
October	0.345	60	75	52	2 18	12	7.87 1890	0.15 1946	1.73 3/33	0
November	0.374	52	63	41	0 83	7	2.78 1916	Nil 1891	1.54 29/56	0
December	0.409	51	63	39	0.58	4	3.17 1951	Nil (*b*)	1.84 3/51	0
Year: Totals	..	..	..	..	34.87	121	..	..	..	7
Year: Averages	0.376	62	..	..	..	..	..	..	..	..
Year: Extremes	..	..	88	39	..	..	18.75 6/1945	Nil(*c*)	3.90 10/6/20	..

(*a*) Standard thirty years normal (1911–1940). (*b*) Various years. (*c*) November to April, various years.
Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: DARWIN, NORTHERN TERRITORY

(Lat. 12° 28′ S., Long. 130° 51′ E. Height above M.S.L. 97 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	84	14	..	15(b)	..	..	8	30	30	30
January	29 709	6.1	..	66	NW & S	W & NW	6 04	16	5.7	1
February	29 718	6.7	..	63	W & S	W & NW	5 61	16	5.6	1
March	29 749	5.3	..	98	SE	W & NW	6.14	14	5.0	3
April	29 802	6.1	..	42	SE	E	6.49	6	2 8	11
May	29 853	6.5	..	39	SE	E	7.27	1	1.7	19
June	29 889	6.5	..	40	SE	E & SE	6.97	0	1.3	22
July	29 907	6.2	..	39	SE	E & SE	7.05	0	1.1	23
August	29 903	5.9	..	45	SE	NW & N	7.73	0	1.0	23
September	29 877	6.2	..	40	SE & S	NW & N	8.07	1	1.6	18
October	29 840	6.2	..	53	S	NW & N	9.17	8	2.6	10
November	29.788	5.5	..	58	W & S	NW & N	8 20	17	3.8	4
December	29.734	6.2	..	66	NW & S	NW & N	7.18	17	4.8	2
Year Totals	..	..	..	..	..	..	85.92	96	..	137
Year Averages	29.814	6.1	..	..	SE	NW	..	..	3.1	..
Year Extremes	..	..	..	98	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Several incomplete years.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends.	84	84	84	84(*a*)	84(*a*)	84	25(*b*)	..	14
January	89.9	77.0	83.5	100.0 *2/82*	68.0 *20/92*	32.0	168.0 26/42	..	5.8
February	89.5	76.6	83.1	100.9 *20/87*	63.0 25/49	37.9	163.6 (*c*)	..	6.2
March	90.4	76.6	83.5	102.0 (*d*)	66.6 31/45	35.4	165.6 23/38	..	6.9
April	91.7	75.5	83.6	104.0 *7/83*	60.8 11/43	43.2	163.0 1/38	..	8.3
May	90.2	72.2	81.2	102.3 *8/84*	59.1 14/64	43.2	160.0 5/20	..	9.5
June	87.7	68.9	78.3	98.6 17/37	53.8 23/63	44.8	155.2 2/16	..	9.8
July	86.9	67.2	77.1	98.0 *17/88*	50.7 29/42	47.3	156.0 28/17	..	9.8
August	88.7	69.3	79.0	98.0 19/00	56.4 11/63	41.6	156.2 28/16	..	10.4
September	90.9	73.6	82.3	102.0 *20/82*	62.1 9/63	39.9	157.0 (*e*)	..	9.9
October	92.6	77.0	84.8	104.8 *17/92*	67.4 25/60	37.4	160.5 30/38	..	9.5
November	92.9	77.6	85.3	103.3 *9/84*	66.8 4/50	36.5	170.4 14/37	..	8.2
December	91.7	77.6	84.7	102.0 *9/83*	65.0 4/60	37.0	169.0 26/23	..	6.9
Year Averages	90.3	74.1	82.2	..	..	..	..	..	8.4
Year Extremes	..	..	..	104.8 17/10/1892	50.7 29/7/42	54.1	170.4 14/11/37	..	..

(*a*) Years 1882–1941 at Post Office, 1942–1965 at Aerodrome; sites not strictly comparable. (*b*) Records discontinued 1942. (*c*) 5/1938 and 23/1938. (*d*) 26/1883 and 27/1883. (*e*) 28/1916 and 3/1921.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	84	84	57(*a*)	57(*a*)	97	68	97(*b*)	97(*b*)	97(*b*)	30
January	0.918	80	89	69	15 09	19	27.86 1896	2.67 1906	11.67 *7/97*	0.0
February	0.918	81	88	71	12 81	18	28.23 1956	0.53 1931	11.00 18/55	0.0
March	0.907	80	84	69	10 52	17	23 42 1965	0.81 1911	7.18 6/19	0.0
April	0.797	72	80	60	3 98	8	23.74 1891	Nil 1950	6.22 4/59	0.0
May	0.644	65	76	49	0.52	1	10.27 1882	Nil (*c*)	2.19 6/22	0.0
June	0.552	63	75	52	0.11	0	1.53 1902	Nil (*c*)	1.32 10/02	0.4
July	0.520	62	71	47	0.05	0	2.56 1900	Nil (*c*)	1.71 2/00	1.1
August	0.608	66	73	53	0.10	0	3.30 1947	Nil (*c*)	3.15 22/47	0.7
September	0.729	68	73	54	0.57	2	4.26 1942	Nil (*c*)	2.78 21/42	0.2
October	0.818	68	72	60	2.15	5	13.34 1954	Nil (*c*)	3.74 18/56	0.0
November	0.865	70	75	62	5.20	11	15.72 1938	0.40 1870	4.73 9/51	0.0
December	0.901	75	83	65	9.60	16	22.94 1965	0.98 1934	7.87 28/10	0.0
Year Totals	..	..	..	..	60.70	97	..	..	..	2.4
Year Averages	0.765	71	..	..	..	..	..	..	..	..
Year Extremes	..	..	89	47	..	..	28.23 2/1956	Nil (*d*)	11.67 7/1/1897	..

(*a*) 1882 to 1938 at Post Office. (*b*) The figures below are the highest or lowest recorded at either the Post Office or Aerodrome sites. (*c*) Various years. (*d*) April to October, various years.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: ADELAIDE, SOUTH AUSTRALIA

(Lat. 34° 56′ S., Long. 138° 35′ E. Height above M.S.L. 140 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 75 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m. 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	109	14(b)	14(b)	49	30(c)	30(c)	94	94	98	51
January	29 920	7.8	18.2 3/55	72	SW	SW	9 29	2 2	2.9	12.4
February	29 953	7 4	17.7 1/64	66	NE	SW	7.52	1.5	2.9	10 8
March	30 038	6.9	19.1 24/64	78	S	SW	6.25	1.8	3.2	11 0
April	30 118	6.9	23.2 10/56	81	NE	SW	3.77	1.5	4.1	7.0
May	30 120	7.0	23.5 19/53	70	NE	NW	2.30	1.6	4.7	4 7
June	30 112	7 3	18.4 12/53	67	NE	N	1.45	1.5	5.0	4.0
July	30 118	7 2	20.4 13/64	92	NE	NW	1.46	1.5	4.8	3.7
August	30 092	7 8	23.7 8/55	75	NE	SW	2 08	1.8	4.1	5.0
September	30 050	8.0	21 7 16/65	69	NNE	SW	3 16	1.8	4.2	5 9
October	30 000	8.4	21.9 6/62	75	NNE	SW	5 03	2.7	4.2	5.4
November	29 977	8.4	20.6 8/52	81	SW	SW	6 78	3.0	3.9	6.8
December	29.923	8.2	17.9 6/52	75	SW	SW	8.64	2.2	3.3	9.1
Year Totals	..	..	..	..	..	..	57.73	23.1	..	85.8
Year Averages	30.035	7.6	..		NE	SW	..	..	3.9	..
Year Extremes	..	..	23.7 8/8/55	92	..		..	..	..	..

(a) Scale 0–8. (b) Records taken from a Munro Anemometer 1952–1965. (c) Standard thirty years normal (1911–1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends.	109	109	109	109	109	109	54(a)	105	84
January	85.5	61.4	73.5	117.7 12/39	45.1 *21/84*	72.6	180.0 *18/82*	36.5 *14/79*	9.9
February	85.0	61.7	73.3	113.6 *12/99*	45.5 23/18	68.1	170.5 10/00	35.8 23/26	9.4
March	80.6	58.9	69.8	110.5 9/34	43.9 21/33	66.6	174.0 *17/83*	32.1 21/33	7.8
April	72.9	54.5	63.7	98.6 5/38	39.6 *15/59*	59.0	155.0 *1/83*	28.0 14/63	5.9
May	65.7	50.4	58.1	89.5 4/21	36.9 (b)	52.6	148.2 *12/79*	25.6 19/28	4.7
June	60.5	46.8	53.7	78.1 4/57	32.5 (c)	45.6	138.8 *18/79*	21.0 24/44	4.1
July	59.0	44.9	51.9	74.0 11/06	32.0 24/08	42.0	134.5 *26/90*	22.1 30/29	4.3
August	61.7	46.0	53.8	85.0 31/11	32.3 *17/59*	52.7	140.0 *31/92*	22.8 11/29	5.2
September	66.2	48.1	57.2	95 0 30/61	32.7 *4/58*	62.4	160.5 *23/82*	25.0 25/27	6.1
October	71.9	51.5	61.7	102.9 21/22	36 1 *20/58*	66.8	162 0 30/21	27.8 (d)	7.1
November	77.6	55.2	66.5	113.5 *21/65*	40.8 2/09	72.7	166.9 *20/78*	31.5 2/09	8.5
December	82.4	58.8	70.6	114.6 29/31	43.0 (e)	71.6	175.7 *7/99*	32.5 *4/84*	9.4
Year Averages	72.4	53.2	62.8				..	..	6.9
Year Extremes	..	..	..	117.7 12/1/39	32.0 24/7/08	85.7	180.0 18/1/1882	21.0 24/6/44	..

(a) Records incomplete 1931–1934. Discontinued 1934. (b) 26/1895 and 24/1904. (c) 27/1876 and 24/1944. (d) 4/1931 and 2/1918. (e) 16/1861 and 4/1906.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	98	98	98	98	127	127	127	127	127	66
January	0 343	39	59	29	0 76	4	3.31 1941	Nil (a)	2.30 *2/89*	0.0
February	0.365	43	57	30	0 76	4	6.09 1925	Nil (a)	5.57 7/25	0.0
March	0 349	47	58	29	0 95	5	4.59 1878	Nil (a)	3.50 *5/78*	0 0
April	0 336	56	72	37	1 73	10	5.81 1938	Nil 1945	3.15 *5/60*	0.0
May	0 319	67	76	49	2 71	13	7.75 1875	0.10 1934	2.75 *1/53*	0.5
June	0 291	75	84	63	2 90	15	8.58 1916	0.23 1958	2.11 1/20	1.1
July	0 278	76	87	66	2 61	16	5.44 1890	0.39 1899	1.75 *10/65*	1.3
August	0 286	70	78	54	2 44	16	6.20 1852	0.33 1944	2.23 *19/51*	0.6
September	0 294	60	72	44	2 01	13	5.83 1923	0.27 1951	1.59 20/23	0.2
October	0 302	50	67	29	1 75	11	5.24 1949	0.17 1914	2.24 16/08	0 0
November	0 308	44	58	31	1 22	8	4.45 1839	0 08 1922	2 96 12/60	0 0
December	0 326	40	56	31	1.02	6	3.98 1861	Nil 1904	2.42 23/13	0.0
Year Totals	..	..	..	..	20.86	121	..	..	..	3.7
Year Averages	0.316	53	..		..	..			..	..
Year Extremes	..	..	87	29	..	..	8.58 6/1916	Nil(b)	5.57 7/2/25	..

(a) Various years. (b) December to April, various years.
Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: BRISBANE, QUEENSLAND

(Lat. 27° 28′ S., Long. 153° 2′ E. Height above M.S.L. 134 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 105 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m. 9 p.m.(*a*)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	79	50	50	50	30(*b*)	30(*b*)	57	79	75(*c*)	58
January	29.906	7.7	19.7 23/47	58	SE	NE	6.89	6.6	4.7	3.4
February	29.897	7.5	23.2 21/54	67	SE	NE	5.47	5.3	4.8	2.5
March	29.962	7.2	20.3 1/29	66	S	E	5.23	4.0	4.7	5.5
April	30.042	6.5	16.7 3/25	64	S	E	4.35	3.3	3.6	7.7
May	30.077	6.2	17.9 17/26	49	SW	SE	3.40	3.0	3.4	10.0
June	30.074	6.3	19.0 14/28	59	SW	W & SW	2.74	2.0	3.3	10.3
July	30.083	6.1	22.0 13/54	69	SW	W & SW	2.94	2.0	2.9	13.3
August	30.089	6.3	14.8 4/35	62	SW	NE	3.77	3.2	2.6	13.8
September	30.051	6.6	16.1 1/48	63	SW	NE	4.59	4.8	2.7	12.8
October	29.997	6.9	15.7 1/41	62	S	NE	5.81	6.2	3.4	8.4
November	29.950	7.3	15.5 10/28	69	SE & N	NE	6.48	7.7	3.9	5.8
December	29.885	7.5	19.5 15/26	79	SE	NE	7.19	8.8	4.3	4.1
Year Totals	. .	. .	. .	. .	. .	. .	58.86	56.9	. .	97.6
Year Averages	30.001	6.8	. .	. .	SW	NE	. .	. .	3.7	. .
Year Extremes	. .	. .	23.2 21/2/54	79	. .	. .	. .	. .	. .	. .

(*a*) Scale 0–8. (*b*) Standard thirty years normal (1911–1940). (*c*) July to December inclusive, seventy-four years.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends	79	79	79	78	78	77	50(*a*)	77	57
January	84.9	68.9	76.9	109.8 26/40	58.8 *4/93*	51.0	169.0 2/37	49.9 *4/93*	7.6
February	84.1	68.7	76.4	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	7.1
March	82.1	66.6	74.3	101.8 13/65	52.4 29/13	49.4	162.5 6/39	45.4 29/13	6.8
April	78.8	61.5	70.2	95.2 (*b*)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	7.1
May	73.6	55.5	64.5	90.3 21/23	40.6 30/51	49.7	147.0 1/10	29.8 *8/97*	6.9
June	69.3	51.2	60.3	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 *23/88*	6.5
July	68.4	48.8	58.7	84.3 23/46	36.1 (*c*)	48.2	146.1 20/15	23.9 *11/90*	7.1
August	71.2	50.1	60.6	91.0 14/46	36.9 13/64	54.1	141.9 20/17	27.1 *9/99*	7.9
September	75.2	54.8	65.0	100.9 22/43	40.7 *1/96*	60.2	155.5 26/03	30.4 *1/89*	8.3
October	79.0	60.1	69.4	105.3 30/58	43.3 *3/99*	62.0	157.4 31/18	34.9 *8/89*	8.3
November	81.9	64.3	73.1	106.1 18/13	48.5 2/05	57.6	162.3 *7/89*	38.8 1/05	8.2
December	84.6	67.3	75.8	105.9 *26/93*	56.3 5/55	49.6	165.9 28/42	49.1 *3/94*	8.2
Year Averages	77.8	59.8	68.8	. .	. .	. .	. .	. .	7.5
Year Extremes	. .	. .	. .	109.8 26/1/40	36.1 (*c*)	73.7	169.0 2/1/37	23.9 11/7/1890	. .

(*a*) From 1887 to March 1947, excluding 1927 to 1936. (*b*) 9/1896 and 5/1903. (*c*) 12/7/1894 and 2/7/1896.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	64(*a*)	79	78	78	114	106	113(*b*)	113(*b*)	113(*b*)	79
January	0.639	66	79	53	6.23	13	27.72 1895	0.32 1919	18.31 *21/87*	0.5
February	0.649	69	82	55	6.41	14	40.39 1893	0.58 1849	10.61 6/31	0.6
March	0.617	71	85	56	5.79	15	34.04 1870	Nil 1849	11.18 14/08	1.3
April	0.516	71	80	56	3.50	12	15.28 1867	0.04 1944	5.46 5/33	2.3
May	0.423	71	85	59	2.69	9	13.85 1876	Nil 1846	5.62 *9/79*	3.3
June	0.356	72	84	54	2.61	8	14.03 1873	Nil 1847	6.41 15/48	3.1
July	0.326	70	88	53	2.21	7	9.10 1963	Nil 1841	7.60 20/65	3.2
August	0.345	67	80	53	1.83	7	14.67 1879	Nil (*c*)	4.89 *12/87*	3.8
September	0.405	63	76	47	1.96	8	5.43 1886	0.10 1907	3.13 12/65	2.7
October	0.472	60	72	48	2.70	9	11.41 1949	0.03 1948	5.34 25/49	1.2
November	0.534	60	73	45	3.66	10	12.40 1917	Nil 1842	4.46 *16/86*	0.5
December	0.593	62	70	51	5.08	12	17.36 1942	0.35 1865	6.60 *28/71*	0.3
Year Totals	. .	. .	. .	. .	44.67	124	. .	. .	. .	22.8
Year Averages	0.490	67	. .	. .	. .	. .	. .	. .	. .	. .
Year Extremes	. .	. .	88	45	. .	. .	40.39 2/1893	Nil (*d*)	18.31 21/1/1887	. .

(*a*) All records up to and including 1950. (*b*) Records incomplete for various years between 1846 and 1859. (*c*) 1862, 1869 and 1880. (*d*) Various months in various years.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: SYDNEY, NEW SOUTH WALES

(Lat. 33° 52′ S., Long. 151° 12′ E. Height above M.S.L. 138 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 58 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.				
No. of years of observations.	56	25(*b*)	25(*b*)	25(*b*)	25(*b*)	25(*b*)	85	106	104	55
January	29.903	7.6	18.8 10/49	93	NE	NE	5.31	4.7	4.7	5.1
February	29.942	7.2	18.8 18/57	63	NE	ENE	4.20	4.2	4.8	4.6
March	30.015	6.5	20.7 10/44	58	WNW	ENE	3.64	3.6	4.4	5.9
April	30.071	6.3	22.5 24/44	72	W	ENE	2.70	3.4	4.1	7.0
May	30.080	6.5	21.0 18/55	63	W	ENE	1.93	2.7	3.9	7.9
June	30.083	7.2	22.4 10/47	84	W	WSW	1.49	2.0	4.0	8.3
July	30.071	7.1	21.3 20/51	66	W	WSW	1.56	2.1	3.5	10.4
August	30.060	7.5	24.6 9/51	68	WNW	WNW	2.02	2.8	3.3	10.6
September	30.036	7.2	21.8 23/42	70	WNW	NE	2.74	3.6	3.5	9.1
October	29.971	7.6	24.5 1/57	95	WNW	ENE	3.91	4.4	4.1	6.8
November	29.927	7.7	19.8 21/54	71	WNW	ENE	4.69	5.2	4.5	5.5
December	29.882	7.6	22.5 11/52	75	NE	ENE	5.37	5.6	4.6	5.0
Year Totals	..	..	..	..	..	..	39.56	44.3	..	86.2
Year Averages	30.003	7.2	..	..	WNW	ENE	..	..	4.1	..
Year Extremes	..	..	24.6 9/8/51	95	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Years 1938–1962 inclusive.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends	107	107	107	107	107	107	84(*a*)	107	45
January	78.2	65.0	71.6	113.6 14/39	51.1 18/49	62.5	164.3 26/15	43.7 6/25	7.3
February	77.8	65.2	71.5	107.8 8/26	49.3 *28/63*	58.5	168.3 14/39	42.8 22/33	6.7
March	76.0	63.2	69.6	102.6 *3/69*	48.8 *14/86*	53.8	158.3 10/26	39.9 17/13	6.3
April	71.6	58.0	64.8	91.4 1/36	44.6 *27/64*	46.8	144.1 *10/77*	33.3 24/09	6.1
May	66.2	52.2	59.2	86.0 1/19	40.2 *22/59*	45.8	129.7 *1/96*	29.3 25/17	5.9
June	61.7	48.4	55.1	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	5.3
July	60.4	46.1	53.3	78.3 22/26	35.9 *12/90*	42.4	124.7 *19/77*	24.0 *4/93*	6.1
August	63.3	47.7	55.5	86.8 24/54	36.8 *3/72*	50.0	149.0 *30/78*	26.1 4/09	6.8
September	67.3	51.4	59.3	94.2 26/65	40.8 2/45	53.4	142.2 *12/78*	30.1 17/05	7.2
October	71.3	55.9	63.6	99.4 4/42	42.2 6/27	57.2	152.2 20/33	32.7 9/05	7.3
November	74.3	59.6	67.0	104.5 6/46	45.8 1/05	58.7	158.5 *28/99*	36.0 6/06	7.6
December	77.0	62.9	69.9	108.0 20/57	48.4 3/24	59.6	164.5 *27/89*	41.4 3/24	7.4
Year Averages	70.4	56.3	63.3	..	..	..	..	..	6.7
Year Extremes	..	..	..	113.6 14/1/39	35.7 22/6/32	77.9	168.3 14/2/39	24.0 4/7/1893	..

(*a*) Records discontinued 1946.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	90	90	90	90	107	107	107	107	107	107
January	0.555	68	78	58	3.73	13	15.26 1911	0.25 1932	7.08 13/11	0.3
February	0.570	71	81	60	4.39	13	22.22 1956	0.12 1939	8.90 *25/73*	0.7
March	0.541	74	85	62	5.01	14	20.52 1942	0.42 1876	11.05 28/42	1.6
April	0.448	75	87	63	5.06	13	24.49 1861	0.06 1868	7.52 *29/60*	2.3
May	0.360	77	90	63	5.01	14	23.03 1919	0.14 1957	8.36 *28/89*	3.4
June	0.302	76	89	63	5.18	12	25.30 1950	0.16 1962	5.17 *16/84*	2.7
July	0.275	74	88	59	4.36	12	13.23 1950	0.10 1946	7.80 7/31	2.3
August	0.286	69	84	54	3.13	11	14.89 1899	0.04 1885	5.33 *2/60*	2.0
September	0.330	65	79	49	2.76	11	14.05 1879	0.08 1882	5.69 *10/79*	1.0
October	0.386	62	77	46	3.00	12	11.13 (*a*)	0.21 1867	6.37 13/02	0.5
November	0.443	62	79	42	2.97	12	20.36 1961	0.07 1915	5.24 27/55	0.5
December	0.513	65	77	51	3.11	13	15.82 1920	0.23 1913	4.75 13/10	0.4
Year Totals	..	..	..	..	47.71	150	..	..	..	17.8
Year Averages	0.417	70	..	..	..	..	..	..	..	..
Year Extremes	..	..	90	42	..	..	25.30 6/1950	0.04 8/1885	11.05 28/3/42	..

(*a*) 1916 and 1959.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY

(Lat. 35° 18′ S., Long. 149° 6′ E. Height above M.S.L., 1,906 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 20 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m. and 3 p.m. (a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.				
No. of years of observations.	26	36	36	26(*b*)	27	27	37	20	35	36
January	29.856	4 4	14.9 23/33	65	NW	NW	7 93	1.5	3 9	6 4
February	29.900	3.9	15.3 24/33	64	E	NW	6 18	2.3	4 1	5 6
March	30 009	3.4	18.2 28/42	69	E	NW	5 07	0.2	4 2	6 0
April	30.059	3.2	18.6 8/45	61	NW	NW	3 27	0.3	4 3	4 5
May	30 126	2 9	13.2 27/58	64	NW	NW	1 90	0.2	4 5	5 6
June	30.120	3.2	16.1 2/30	60	NW	NW	1 23	0.1	4 9	4 5
July	30.133	3.2	23.4 7/31	63	NW	NW	1 22	0.0	4 5	5 0
August	30.065	3.7	15.7 25/36	70	NW	NW	1 73	0.1	4 4	5 0
September	30.057	4.0	17.4 28/34	61	NW	NW	2 80	0.4	4 2	5.7
October	29.954	4.2	14.7 12/57	74	NW	NW	4 33	1.0	4 5	4.5
November	29.885	4.5	17.2 28/42	79	NW	NW	5 77	1.1	4 4	4.1
December	29.834	4.4	16.1 11/38	66	NW	NW	7.29	0.7	4.1	5.7
Year Totals	..	..	..	..	..	..	48.72	7.9	..	62.6
Year Averages	30.000	3.7	..	..	NW	NW	..	..	4.3	..
Year Extremes	..	..	23.4 7/7/31	79	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Maximum gust data are for Canberra Aerodrome.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends	38	38	38	38	38	38	—	38	26
January	82.2	56.1	69.1	107.4 11/39	38.0 1/56	69.4	..	30.1 10/50	9.0
February	80.7	56.0	68.4	99.8 13/33	35.0 (*a*)	64.8	..	26.5 23/43	8 3
March	76.2	52.5	64.3	99.1 6/38	34.8 31/49	64.3	..	26.4 26/35	7 4
April	67.0	45.5	56.3	89.7 6/38	29.0 29/34	60.7	..	19.0 18/44	6.9
May	59.3	38.9	49.1	72.6 1/36	22.5 (*b*)	50.1	..	15.6 (*c*)	5 6
June	53.2	35.5	44.3	68 8 3/57	18.1 20/35	50.7	..	8.9 25/44	4 6
July	51.8	33.8	42.8	63.5 16/34	20.0 (*d*)	43.5	..	10.8 9/37	5.0
August	55.1	35.5	45.3	71.0 24/54	21.0 3/29	50.0	..	10.1 6/44	6.0
September	61.2	39.0	50.1	83.6 26/65	25.2 6/45	58.4	..	13.0 6/45	7 5
October	67.0	44.3	55.7	90.0 13/46	28.0 26/61	62.0	..	18 2 2/45	8.0
November	73.1	48.9	61.0	101.4 19/44	32.2 (*e*)	69.2	..	25.9 6/40	9.0
December	79.0	53.4	66.2	103.5 27/38	36.0 24/28	67.5	..	28.1 11/64	9.1
Year Averages	67.2	44.9	56.1	..	..	..	..	..	7.2
Year Extremes	..	..	..	107.4 11/1/39	18.1 20/6/35	89.3	..	8.9 25/6/44	..

(*a*) 22/1931 and 23/1931. (*b*) 9/1929 and 15/1957. (*c*) 13/1937 and 15/1946. (*d*) 19/1929, 9/1937 and 27/1943. (*e*) 11/1936 and 6/1960.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	37	37	28	28	38	38	38	38	38	34
January	0.381	53	69	39	2 14	7	6.69 1941	0.02 1932	3.22 30/58	0.1
February	0 405	60	71	40	2.11	7	6.03 1948	0.01 1933	3.24 17/28	0.2
March	0 384	67	82	48	2.49	7	12.69 1950	0.01 (*a*)	2.72 1/61	1.5
April	0.319	74	81	54	2.13	8	5.19 1952	0.07 1942	2.52 9/45	2.6
May	0 257	79	89	67	1.91	8	6.13 1948	0.06 1935	3.88 3/48	5.4
June	0 216	82	90	71	1 83	10	6.09 1931	0.18 1944	2.32 25/56	6.2
July	0 201	81	91	73	1 80	11	5.08 1960	0.27 1940	2.02 13/33	6.1
August	0 214	76	88	60	1.93	11	4.71 1939	0.36 (*b*)	2.07 12/29	3.1
September	0 241	67	78	51	1 84	10	4.52 1960	0.13 1946	1.78 16/62	2.1
October	0 285	62	72	46	2 86	11	6.98 1959	0.34 1940	5.19 20/59	0.4
November	0 310	55	67	38	2 15	9	5.98 1961	0.28 1936	2.45 9/50	0.2
December	0.350	53	70	37	2.15	8	8.80 1947	0.16 1938	2.29 28/29	0.1
Year Totals	..	..	..	..	25.34	107	..	..	..	28.0
Year Averages	0.297	67	..	..	..	..	..	..	..	..
Year Extremes	..	..	91	37	..	..	12.69 3/50	0.01 (*c*)	5.19 21/10/59	..

(*a*) 1940 and 1954. (*b*) 1944 and 1949. (*c*) 2/1933, 3/1940 and 3/1954.

CLIMATOLOGICAL DATA: MELBOURNE, VICTORIA

(Lat. 37° 49′ S., Long. 144° 58′ E. Height above M.S.L., 114 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 93 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	109	26(b)	53	56	47	47	93	58	108	58
January . .	29.909	8.6	21.1 27/41	66	S	S	6.48	1 8	4 1	6.6
February. .	29.950	8 2	19.0 13/47	74	S & SW	S	5.08	2.4	4 0	5.9
March . .	30.024	7.5	18.0 3/61	66	N	S	4.10	1.5	4 4	5.4
April . .	30.092	7.2	19.9 16/43	67	N	S	2 49	1 2	4 8	4.2
May . .	30.093	7.5	20 5 4/61	72	N	N & S	1.54	0 5	5 2	2.9
June . .	30.086	7.7	22.8 16/47	64	N	N	1.15	0 4	5.3	2.7
uly . .	30 080	8 2	22.7 22/60	68	N	N	1.12	0 4	5.2	2.5
August . .	30.051	8 2	21.3 20/42	65	N	N & S	1 52	0 7	5.0	2.7
September .	30 003	8.3	21.1 15/64	69	N	S	2 36	1 0	4 8	3.6
October . .	29.962	8.4	18.6 12/52	69	N	S	3.40	1 6	4.9	3.4
November .	29 962	8 7	21.2 13/58	71	SW	S	4 52	2 2	4.9	3.2
December .	29.894	8.7	21.0 12/52	61	S & SW	S	5.78	2 2	4 5	4.4
Year Totals .	..	..	..	..	..	..	39 54	15 9	..	47 5
Year Averages	30.009	8.1	..	..	N	S	..	..	4 8	..
Year Extremes	..	..	22.8 16/6/47	74	..	..	..	..	..	..

(a) Scale 0–8. (b) Early records not comparable.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	110	110	110	110	110	110	86(a)	106	50
January . . .	78.4	56.9	67.6	114.1 13/39	42.0 *28/85*	72.1	178.5 *14/62*	30.2 *28/85*	8.1
February . . .	78.0	57.3	67.6	109.5 7/01	40.2 24/24	69.3	167.5 *15/70*	30.9 *6/91*	7.6
March . . .	74.7	54.9	64.8	107.0 11/40	37.1 *17/84*	69.9	164.5 *1/68*	28.9 (b)	6.6
April . . .	68.1	50.7	59.4	94.8 5/38	34.8 *24/88*	60.0	152.0 *8/61*	25.0 *23/97*	5.0
May . . .	61.6	46.8	54.2	83.7 7/05	29.9 29/16	53.8	142.6 *2/59*	21.1 26/16	3.9
June . . .	56.9	44.0	50.4	72.3 2/57	28.0 *11/66*	44.3	129.0 *11/61*	19.9 30/29	3.4
July . . .	55.8	42.1	48.9	69.3 22/26	27.0 *21/69*	42.3	125.8 *27/80*	20.5 12/03	3.7
August . . .	58.7	43.4	51.0	77.0 *20/85*	28.3 *11/63*	48.7	137.4 *29/69*	21.3 14/02	4.6
September . . .	62.9	45.6	54.2	88.6 28/28	31.0 3/40	57.6	142.1 *20/67*	22.8 8/18	5.5
October . . .	67.1	48.4	57.8	98.4 24/14	32.1 *3/71*	66.3	154.3 *28/68*	24.8 22/18	5.9
November . . .	71.3	51.3	61.3	105.7 *27/94*	36.5 *2/96*	69.2	159.6 *29/65*	24.6 *2/96*	6.4
December . . .	75.5	54.5	65.0	110.7 *15/76*	40.0 *4/70*	70.7	170.3 *20/69*	33.2 1/04	7.3
Year Averages .	67.4	49.6	58.5	..	..	..	..	..	5.7
Year Extremes .	..	..	..	114.1 13/1/39	27.0 21/7/1869	87.1	178.5 14/1/1862	19.9 30 6/29	.

(a) Records discontinued 1946. (b) 17/1884 and 20/1897.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	58	58	58	58	110	110	110	110	110	108
January . . .	0.384	58	68	50	1.87	8	6.92 1963	0.01 1932	4.25 29/63	0.1
February . . .	0.416	63	77	48	1.90	7	7.72 1939	0.02 1965	3.44 26/46	0 3
March . . .	0.393	65	79	50	2.09	9	7.50 1911	0.14 1934	3.55 5/19	0.8
April . . .	0.345	72	82	66	2.33	11	7.67 1960	Nil 1923	3.15 23/60	1.9
May . . .	0.307	79	88	70	2 21	14	5.60 1942	0.14 1934	1.85 *7/91*	3.8
June . . .	0.274	83	92	73	2.02	14	4.51 1859	0.61 1958	1.74 21/04	4.8
July . . .	0.263	81	86	75	1.94	15	7.02 1891	0.57 1902	2.71 *12/91*	4.5
August . . .	0.266	75	82	65	1.93	15	4.35 1939	0.48 1903	1.94 26/24	2.4
September . .	0 280	68	76	60	2 34	14	7.93 1916	0.52 1907	2.62 *12/80*	0.9
October . . .	0.307	62	71	52	2.69	14	7.61 1869	0.29 1914	3.00 *17/69*	0.4
November . .	0.334	60	69	52	2 33	12	8.11 1954	0.25 1895	2.86 21/54	0.2
December . .	0.363	58	69	48	2 28	10	7.18 1863	0.11 1904	3.92 4/54	0 2
Year Totals . .	..	..	..	..	25.93	143	..	..	..	20.3
Year Averages .	0.328	69	..	..	..	..	..	..	..	..
Year Extremes .	..	..	92	48	..	..	8.11 11/1954	Nil 4/1923	4.25 29/1/63	..

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: HOBART, TASMANIA

(Lat. 42° 53′ S., Long. 147° 20′ E. Height above M.S.L. 177 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 40 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(*a*)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	30(*b*)	30(*b*)	72	74	30(*b*)	30(*b*)	30(*b*)	30(*b*)	30(*b*)	30(*b*)
January . .	29.819	8.0	20.8 30/16	76	NNW	SSE	4.84	0.9	5.1	1.9
February . .	29.913	7.2	25.2 4/27	67	NNW	SSE	3.71	1.0	5.0	2.3
March . .	29.961	6.8	21.4 13/38	79	NW	SSE	3.10	1.2	4.9	2.4
April . .	29.997	6.7	24.1 9/52	74	NW	W	1.98	0.7	5.2	1.7
May . .	30.009	6.3	20.2 20/36	84	NNW	NW	1.37	0.4	4.9	2.4
June . .	29.986	6.2	23.7 27/20	82	NW	NW	0.91	0.4	5.0	2.4
July . .	29.958	6.5	22.9 22/53	80	NNW	NNW	0.94	0.3	4.9	2.0
August . .	29.906	6.8	25.5 19/26	87	NNW	NW	1.28	0.4	4.9	2.1
September .	29.860	7.9	26 7 28/65	93	NNW	NW	1.97	0.7	5.0	1.5
October . .	29.833	8.2	20.0 3/65	89	NNW	SW	3.05	0.6	5.3	1.0
November .	29.831	7.9	21.2 18/15	84	NNW	S	3.77	0.7	5.1	1.3
December .	29.816	7.6	23.4 1/34	70	NNW	SSE	4.37	0.5	5.4	1.1
Year Totals .	..	..	..	..	..	..	31.29	7.8	..	22.1
Year Averages	29.907	7.2	..	..	NNW	W	..	..	5.0	..
Year Extremes	..	..	26.7 28/9/65	93	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Standard thirty years' normal (1911–1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	95	95	30(*a*)	95(*b*)	95(*b*)	95(*b*)	57(*c*)	77(*b*)	30(*i*)
January . . .	70.9	52.6	61.0	105.0 (*d*)	40.1 (*e*)	64.9	160.0 (*f*)	30.6 *19/97*	7.7
February . . .	70.8	52.9	62.2	104.4 *12/99*	39.0 *20/87*	65.4	165.0 *24/98*	28.3 *—/87*	7.1
March . . .	68.0	50.7	59.4	99.1 13/40	35.2 31/26	63.9	150.9 26/44	27.5 30/02	6.4
April . . .	62.5	47.4	55.1	87.1 1/41	33.2 14/63	53.9	142.0 *18/93*	25.0 *—/86*	5.0
May	57.4	43.9	51.2	77.8 5/21	29.2 20/02	48.6	128.0 (*g*)	20.0 19/02	4.4
June	52.9	41.0	47.0	69.2 1/07	29.2 28/44	40.0	122.0 *12/94*	18.1 24/63	4.0
July	52.2	39.6	46.6	66.1 14/34	27.7 *11/95*	38.4	121.0 *12/93*	18.7 *16/86*	4.4
August . . .	54.9	40.9	48.7	71.6 28/14	28.9 9/51	42.7	129.0 *—/87*	20.1 7/09	5.1
September . . .	58.9	43.0	51.4	81.7 23/26	31.0 *16/97*	50.7	138.0 *23/93*	18.3 16/26	5.9
October . . .	62.4	45.4	54.3	92.0 24/14	32.0 *12/89*	60.0	156.0 *9/93*	23.8 (*h*)	6.1
November . . .	65.6	48.1	56.6	98.3 26/37	35.0 16/41	63.3	154.0 *19/92*	26.0 1/08	7.2
December . . .	68.8	51.0	59.6	105.2 *30/97*	38.0 3/06	67.2	161.5 10/39	27.2 *—/86*	7.4
Year Averages . .	62.1	46.4	54.4	..	..	..	..	..	5.9
Year Extremes . .	..	..	..	105.2 30/12/1897	27.7 11/7/1895	77.5	165.0 24/2/1898	18.1 24/6/63	..

(*a*) Standard thirty years normal (1911–1940). (*b*) Records 1855–1882 not comparable. (*c*) Period 1934–1938 not comparable; records discontinued 1946. (*d*) 1/1900 and 19/1959. (*e*) 9/1937 and 11/1937. (*f*) 5/1886 and 13/1905. (*g*) —/1899 and —/1893. (*h*) 1/1886 and —/1899. (*i*) 1921–1950.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	30(*a*)	55	71	71	83	30(*a*)	82(*b*)	82(*b*)	82(*b*)	30(*c*)
January . . .	0.309	59	72	46	1.96	13	5.91 1893	0.17 (*d*)	2.96 30/16	0.0
February . . .	0.342	63	77	48	1.60	10	6.72 1964	0.11 1914	2.20 1/54	0.0
March . . .	0.323	67	77	52	1.85	13	10.05 1946	0.29 1943	3.47 17/46	0.3
April . . .	0.290	72	84	58	2.18	14	9.75 1960	0.07 1904	5.25 23/60	0.2
May . . .	0.263	78	89	65	1.93	14	8.43 1958	0.14 1913	1.75 *2/93*	0.9
June . . .	0.233	80	91	68	2.42	16	9.38 1954	0.28 1886	5.80 7/54	0.8
July . . .	0.227	80	94	72	2.05	17	6.02 1922	0.17 1950	2.51 18/22	1.0
August . . .	0.232	76	92	60	1.89	18	6.32 1946	0.30 1892	2.28 *14/90*	0.4
September . .	0.240	67	85	58	2.06	17	7.93 1957	0.38 1951	6.15 15/57	0.1
October . . .	0.258	63	73	51	2.51	18	7.60 1947	0.39 1914	2.58 4/06	0.0
November . .	0.274	60	72	50	2.15	16	7.39 1885	0.33 1921	3.70 *30/85*	0.1
December . .	0.306	58	67	45	2.24	14	7.72 1916	0.17 1931	3.33 5/41	0.0
Year Totals . .	..	..	..	..	24.84	180	..	..	..	3.8
Year Averages .	0.275	69	..	..	..	..	..	..	..	..
Year Extremes .	..	..	94	45	..	..	10.05 3/1946	0.07 4/1904	6.15 15/9/57	..

(*a*) Standard thirty years' normal (1911–1940). (*b*) Records prior to 1883 not comparable. (*c*) 1922–1951. (*d*) 1915 and 1958.

Dates in italics relate to nineteenth century.

Rainfall and temperatures, various cities

Year Book No. 34, page 28, shows rainfall and temperature, and No. 38, page 42, temperature, for various important cities throughout the world and for the Australian capitals.

Climatological data for selected Australian country towns

The following table shows some of the more important climatological data for selected Australian country towns, based on standard thirty years normals (1911–1940).

CLIMATOLOGICAL DATA FOR SELECTED AUSTRALIAN COUNTRY TOWNS

Town	Rainfall		Temperature				Relative humidity			
	Average annual rainfall	Average number of wet days	Mean maximum, January (°F.)	Mean maximum, July (°F.)	Mean minimum, January (°F.)	Mean minimum, July (°F.)	Average index of mean relative humidity,(*a*) January	Average index of mean relative humidity,(*a*) July	Mean 3 p.m., January (%)	Mean 3 p.m., July (%)
WESTERN AUSTRALIA										
Albany	39.67	172	73.8	60.9	58.5	46.3	73	76	65	70
Broome	22.87	38	91.3	81.8	79.2	57.0	75	52	67	43
Bunbury	33.22	125	82.1	62.5	59.1	47.1	66	78	57	71
Carnarvon	9.01	35	87.2	71.7	72.1	51.6	64	66	61	57
Esperance	26.73	124	76.6	62.1	59.9	45.4	70	77	63	65
Geraldton	18.58	80	84.5	67.7	66.3	51.7	61	68	60	60
Kalgoorlie	9.46	62	93.2	62.5	64.2	42.9	43	66	27	50
Meekatharra	9.17	36	100.4	67.5	73.1	44.0	31	59	21	44
Narrogin	21.38	108	87.3	57.9	56.3	41.3	..	..	..	..
Port Hedland	11.01	20	94.3	79.3	79.4	55.6	67	49	63	47
Wyndham	25.15	55	95.9	85.0	80.2	66.2	66	38	54	35
NORTHERN TERRITORY										
Alice Springs	9.93	31	95.3	66.9	69.8	38.9	33	49	26	32
Tennant Creek	13.85	30	98.5	75.4	75.9	51.1	41	36	27	25
SOUTH AUSTRALIA										
Ceduna	10.50	68	81.5	62.6	58.8	43.8	..	..	..	..
Mount Gambier	26.86	192	74.2	56.2	53.5	42.4	65	79	50	69
Oodnadatta	4.44	20	99.0	66.4	72.1	42.7	27	49	17	34
Port Augusta	9.28	62	89.5	62.8	65.3	43.9	50	66	33	52
Port Lincoln	18.24	119	77.4	60.2	58.5	46.4	64	76	53	70
Port Pirie	12.99	78	89.2	61.7	62.6	45.4	51	72	..	..
QUEENSLAND										
Atherton	53.99	116	83.8	70.9	65.0	50.0	78	79	..	..
Bundaberg	42.37	84	86.1	71.6	69.7	49.2	74	72	63	55
Cairns	86.35	140	89.7	78.1	74.2	61.0	77	74	69	63
Charleville	17.97	49	97.6	68.3	70.8	40.1	44	61	28	39
Charters Towers	23.26	59	92.9	76.0	71.3	51.6	65	64	46	47
Cloncurry	16.89	35	98.7	76.4	76.5	51.5	40	40	30	27
Ipswich	28.97	76	90.4	70.0	67.8	43.8	65	65	..	..
Longreach	15.54	37	99.6	73.2	73.3	44.3	49	56	29	35
Mackay	63.16	116	86.2	71.0	73.6	53.4	80	77	..	..
Maryborough	45.43	122	87.9	71.5	68.8	47.6	73	74	..	..
Normanton	37.56	56	94.3	84.0	77.0	58.6	70	48	52	34
Rockhampton	37.36	93	90.0	73.7	72.3	51.2	68	65	55	45
Roma	20.43	52	94.4	67.4	68.3	39.3	51	64	32	40
Toowoomba	35.19	105	82.7	61.1	61.2	40.7	73	79	..	..
Townsville	43.06	75	87.3	76.0	76.2	59.8	75	64	69	59

For footnote *see* next page.

CLIMATOLOGICAL DATA FOR SELECTED AUSTRALIAN COUNTRY TOWNS —*continued*

Town	Rainfall		Temperature				Relative humidity			
	Average annual rainfall	Average number of wet days	Mean maximum, January (°F.)	Mean maximum, July (°F.)	Mean minimum, January (°F.)	Mean minimum, July (°F.)	Average index of mean relative humidity,(*a*) January	Average index of mean relative humidity,(*a*) July	Mean 3 p.m., January (%)	Mean 3 p.m., July (%)
				NEW SOUTH WALES						
Albury	27.66	99	89.9	56.4	59.8	38.2	47	74	29	64
Armidale	28.98	107	80.8	54.0	56.5	33.8	60	61	44	57
Bega	35.92	80	81.2	62.9	57.3	34.5	72	70	..	..
Bourke	11.74	44	98.0	63.8	69.3	40.8	37	64	24	48
Broken Hill	9.20	46	90.5	59.5	64.5	41.2	36	67	24	49
Cooma	18.85	88	78.8	50.4	52.2	30.2	55	67	38	56
Dubbo	20.91	72	92.1	59.7	63.8	37.5	48	74	32	56
Goulburn	24.27	112	81.5	52.4	56.2	35.8	59	74	43	67
Grafton	34.68	105	89.1	70.6	67.2	43.9	..	..	..	..
Katoomba	53.17	126	73.9	48.4	54.6	36.7	61	71	54	68
Leeton	15.76	78	88.9	56.8	63.2	38.9	44	76	..	..
Moree	21.43	56	96.0	64.8	67.4	39.0	..	..	..	..
Newcastle	41.36	132	77.7	61.4	66.6	47.7	74	70	69	61
Orange	31.52	95	83.9	51.6	53.7	31.4	..	..	..	..
Tamworth	24.41	67	91.0	60.4	63.4	36.8	..	..	..	..
Taree	47.48	110	83.9	64.5	62.0	42.7	..	..	..	..
Wagga	21.42	86	89.8	57.1	61.5	37.8	50	77	31	65
Wollongong	44.04	112	78.4	61.7	62.6	47.1	78	71	..	..
				VICTORIA						
Ballarat	27.38	170	75.7	49.8	50.5	38.4	60	81	41	75
Bendigo	20.27	111	83.0	54.2	56.5	39.4	47	75	30	64
Geelong	21.32	133	76.2	56.5	55.4	42.0	65	81	52	70
Horsham	17.57	104	85.1	56.0	55.2	38.8	50	77	33	67
Mildura	10.37	61	89.8	59.5	61.0	40.5	48	71	..	..
Sale	23.70	128	77.5	56.8	54.4	38.6	65	79	51	68
Seymour	22.17	94	84.7	55.2	54.6	37.4	56	79	..	..
Shepparton	19.94	103	86.3	55.7	58.8	39.3	49	77	32	63
Wangaratta	25.57	104	86.7	55.2	58.5	38.1	41	75	26	66
Warrnambool	25.79	153	69.9	55.6	54.7	43.6	73	83	69	77
				TASMANIA						
Burnie	38.99	170	67.6	53.7	51.9	41.7	70	82	65	74
Launceston	28.56	149	75.8	53.7	52.1	36.9	60	77	..	
Zeehan	94.06	246	66.3	51.6	48.0	38.2	73	81	61	74

(*a*) The average index of mean relative humidity has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the average mean temperature of the month. Being thus related to the mean temperature this value of relative humidity is a good approximation to the daily mean.

The table on the next page gives the latitude, longitude, and altitude of the weather recording station at each of the above towns.

LOCATION CO-ORDINATES FOR SELECTED AUSTRALIAN COUNTRY TOWNS

Station	Lat.	Long.	Altitude (ft)
Western Australia—			
Albany	34° 57′	117° 48′	226
Broome	17° 57′	122° 13′	39
Bunbury	33° 19′	115° 38′	3
Carnarvon	24° 53′	113° 39′	12
Esperance	33° 51′	121° 53′	14
Geraldton	28° 48′	114° 42′	92
Kalgoorlie	30° 46′	121° 27′	1,180
Meekatharra	26° 36′	118° 29′	1,697
Narrogin	32° 54′	117° 09′	1,150
Port Hedland	20° 23′	118° 37′	20
Wyndham	15° 31′	128° 09′	20
Northern Territory—			
Alice Springs	23° 48′	133° 53′	1,790
Tennant Creek	19° 38′	134° 11′	1,229
South Australia—			
Ceduna	32° 08′	133° 42′	57
Mount Gambier	37° 45′	140° 47′	206
Oodnadatta	27° 33′	135° 29′	371
Port Augusta	32° 33′	137° 47′	14
Port Lincoln	34° 47′	135° 53′	13
Port Pirie	33° 11′	138° 01′	10
Queensland—			
Atherton	17° 17′	145° 27′	2,466
Bundaberg	24° 52′	152° 21′	6
Cairns	16° 35′	145° 44′	10
Charleville	26° 25′	146° 17′	950
Charters Towers	20° 03′	146° 08′	1,004
Cloncurry	20° 40′	140° 30′	621
Ipswich	27° 38′	152° 44′	64
Longreach	23° 26′	144° 15′	612
Mackay	21° 07′	149° 10′	9
Maryborough	25° 32′	152° 42′	20
Normanton	17° 39′	141° 05′	34
Rockhampton	23° 23′	150° 29′	26
Roma	26° 36′	148° 42′	1,000
Queensland—*continued*			
Toowoomba	27° 33′	151° 57′	1,921
Townsville	19° 15′	146° 46′	10
New South Wales—			
Albury	36° 06′	146° 54′	600
Armidale	30° 32′	151° 38′	3,215
Bega	36° 40′	149° 50′	50
Bourke	30° 05′	145° 58′	350
Broken Hill	31° 57′	141° 28′	978
Cooma	36° 13′	149° 08′	2,749
Dubbo	32° 10′	148° 37′	861
Goulburn	34° 45′	149° 43′	2,074
Grafton	29° 41′	152° 56′	21
Katoomba	33° 43′	150° 19′	3,280
Leeton	34° 33′	146° 24′	496
Moree	29° 28′	149° 51′	680
Newcastle	32° 55′	151° 49′	122
Orange	33° 18′	149° 06′	2,850
Tamworth	31° 05′	150° 56′	1,279
Taree	31° 54′	152° 28′	30
Wagga	35° 08′	147° 25′	719
Wollongong	34° 25′	150° 56′	150
Victoria—			
Ballarat	37° 35′	143° 50′	1,433
Bendigo	36° 46′	144° 17′	730
Geelong	38° 07′	144° 22′	57
Horsham	36° 40′	142° 12′	437
Mildura	34° 14′	142° 05′	156
Sale	38° 06′	147° 08′	15
Seymour	37° 02′	145° 08′	464
Shepparton	36° 23′	145° 24′	372
Wangaratta	36° 22′	146° 19′	493
Warrnambool	38° 24′	142° 29′	33
Tasmania—			
Burnie	41° 04′	145° 54′	13
Launceston	41° 33′	147° 13′	546
Zeehan	41° 54′	145° 23′	592

The weather of 1966 (December 1965 to November 1966)

The following is a brief summary of weather experienced during the four seasons ended in November 1966. Plate 3 (between pages 32 and 33) shows the rainfall distribution for 1966.

Summer 1965–66. Summer commenced with a broad tract from the Kimberleys to New England and the Hunter River in the grip of a drought and ended with the drought stricken area reduced mainly to south-western Queensland, the northern part of New South Wales on and west of the Divide and the Hunter Valley.

Tropical cyclones were absent from the east coast of Australia, but three affected the Northern Territory and Western Australia, giving beneficial rains; one decaying cyclone caused a swathe of rain to the coast of the Great Australian Bight. The monsoon low was active, and generally the north had a good ' wet ', except for the base of Cape York Peninsula and the adjacent Gulf of Carpentaria coastal districts, which were outside the area. In the south of the continent easterly winds had been general. The humidity had not been low nor had temperatures been markedly above normal for lengthy periods; therefore conditions for serious bushfires did not continue for many days at a time.

The total summer rainfall in the eastern States was mainly below normal, and in New South Wales and southern Queensland was largely confined to December. Water storages in New South Wales west of the Great Dividing Range and in the Hunter Valley were low, and there was concern that the supplies would become completely exhausted.

By the end of summer the pastoral situation was good in all States except New South Wales and south-western Queensland. Agriculture in southern areas, except for much of New South Wales, had good harvests, and prospects for preparation for sowing were satisfactory. In the Murray River districts the vine crops suffered from rain on the ripe fruit.

There were floods on the Clarence River in New South Wales and in southern central Western Australia, but the greater part of the flooding that occurred was in the north, and this was consistent with a good wet season.

Autumn of 1966. There were no tropical cyclones near Queensland, and rainfall there and in northern New South Wales was below normal, so that hopes at the end of summer of a break in the drought in south-western Queensland and northern inland New South Wales were not realised. One cyclone crossed the coast of Western Australia and brought heavy rain to the De Grey and Fortescue districts. Elsewhere the rainfall was adequate in the better watered areas, but the lower rainfall areas remained dry.

Early in autumn conditions fluctuated markedly from hot to cool. On the average Queensland was the only State where temperatures were much above normal for autumn.

In parts of the south there were bushfires early in March, but rain later in the month reduced the hazard and the fire season ended in March or early April. An aftermath of the drought conditions in New South Wales was that fuel for bushfire occurrence was lacking.

Thunderstorms early in autumn gave many places in the east useful rain. With the advance of the season there were a few fogs and frosts. In Tasmania and on the Australian Alps there were light falls of snow.

Away from the drought areas stock were in fair to good condition. In many places farmers were waiting for rain before sowing wheat. In Queensland summer grain and seed crops were good but the sugar crop was adversely affected by dry conditions.

In New South Wales irrigation water storages were low. In Victoria and Western Australia they were satisfactory for the season.

Winter of 1966. The winter commenced with a considerable portion of all mainland States except Western Australia and Victoria suffering from drought. The season ended with the drought-affected areas in the inland reduced to sections of far western Queensland and western New South Wales. By the end of winter cereal crop prospects were good.

There was an absence of marked extremes during winter. Inland, except for a few areas, rainfall ranged from adequate to abundant. Daily maximum and minimum temperatures were variable, owing largely to the periods of considerable cloud cover. In the eastern States and South Australia there were a few periods of cold conditions, but they were not as numerous as in many winters. Snow in Tasmania and on the Alps was slightly above average.

The only bushfire was in the Sydney metropolitan area, and fire restrictions were applied in some coastal districts north of Sydney.

In Central Australia there was widespread flooding following the drought-breaking rains; the only other floods were minor and of short duration.

Except in Queensland and New South Wales, stock were in good condition and only in these two States were storages of irrigation water low.

Spring of 1966. Spring rainfall in the temperate parts of Australia was adequate and in many places was well above normal. North of the tropic, rainfall was scattered and the general dry conditions of spring prevailed.

The circulation during the season had many periods of south-north or north-south movements of air producing periods of colder or warmer weather than normal in southern and south-eastern regions.

Pasture and other growth in temperate areas was very good, and in warm, dry periods during November there were outbreaks of grass and scrub fires. The abundance of vegetation was causing fire prevention authorities to warn of danger ahead.

Minor flooding occurred in all States except Western Australia and the Northern Territory; there were drownings in swollen streams. Although there were strong winds at times, no State was affected by prolonged periods of such winds.

The numbers of occurrences of meteorological phenomena—frost, snow, hail, thunderstorms and fog—were near usual for the season; none of the phenomena was of unusual severity.

Pastoral conditions deteriorated in many places in the tropics; elsewhere there was improvement and prospects were generally good. The cereal harvest in almost every area promised to be good. Other crops were in good condition.

The water held in dams for irrigation purposes increased markedly during spring, but the dams in the northern half of New South Wales held less water than desirable at the end of spring.

CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under section 1 of the Commonwealth of Australia Constitution the legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor who is the representative of the Sovereign for the State and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office and by the instructions which detail the manner in which his duties are to be fulfilled. The Legislature in each State was bicameral until 1922, when the Queensland Upper House was abolished and the Parliament became unicameral. In the bicameral Parliaments, the Upper House is known in the Commonwealth Parliament as the Senate, and in the State Parliaments as the Legislative Council, while the Lower House is known in the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. In Queensland the sole legislative chamber is known as the Legislative Assembly. The extent of the legislative powers of the Parliaments is defined by the Commonwealth and State Constitutions. In those States that have a bi-cameral legislature the Legislative Assembly or House of Assembly is the larger House. The members of the Legislative Assembly or House of Assembly, as the case may be, of each State are elected by the people, the franchise extending to adult British subjects with certain residential qualifications. With the exception of the New South Wales Legislative Council, the members of State Legislative Councils are, in common with members of the Lower Houses, elected by the people of the respective States. In New South Wales a quarter of the members of the Legislative Council retire each three years and the continuing members of the Council and the members of the Legislative Assembly, voting as an electoral body, elect members to fill the vacant positions. In Victoria and Western Australia members of the Legislative Council are elected by adult suffrage, while the franchise is limited in South Australia to the holders of certain property or service qualifications, and in Tasmania to the holders of certain property, service or educational qualifications. In the Commonwealth Parliament the qualifications for the franchise are identical for both Houses, extending to adult British subjects who have lived in Australia for six months continuously.

The Sovereign

On 7 February 1952 the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2 June 1953.

The Governor-General

Powers and functions. As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen. Other powers and functions are conferred on him by the Constitution. Powers which have been so assigned or conferred include, among others, the power to grant pardons and to remit fines for offences against the laws of the Commonwealth; to appoint certain officers in the Diplomatic or Consular Service of the Commonwealth; to appoint times for holding the sessions of the Parliament, prorogue Parliament and dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament or withhold assent, or to reserve the law for the Queen's pleasure, or to return the proposed law to the House in which it originated and transmit therewith any amendments which he may recommend; to exercise the executive power of the Commonwealth; to choose and summon Executive Councillors, who hold office during his pleasure; and to appoint Ministers of State for the Commonwealth. In addition, the command-in-chief of the defence forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

Most Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the Act. The Governor-General may also be authorised by statute to issue proclamations—for example, to declare an Act in force or a state of things to exist, e.g. the calling out of the Citizen Military Forces in time of war or defence emergency. He has been given power by statute to legislate for certain Territories of the Commonwealth. Under the conventions of responsible government obtaining in British Commonwealth countries, the Governor-General's functions are exercised generally on the advice of Ministers of State.

Holders of office. The following list shows the names of the Governors-General since the inception of the Commonwealth.

GOVERNORS-GENERAL

Rt Hon. John Adrian Louis, Earl of Hopetoun (afterwards Marquis of Linlithgow), P.C., K.T., G.C.M.G., G.C.V.O. From 1 January 1901 to 9 January 1903.

Rt Hon. Hallam, Baron Tennyson, P.C., G.C.M.G. From 17 July 1902 to 9 January 1903, (Acting).

Rt Hon. Hallam, Baron Tennyson, P.C., G.C.M.G. From 9 January 1903 to 21 January 1904.

Rt Hon. Henry Stafford, Baron Northcote, P.C., G.C.M.G., G.C.I.E., C.B. From 21 January 1904 to 9 September 1908.

Rt Hon. William Humble, Earl of Dudley, P.C., G.C.B., G.C.M.G., G.C.V.O. From 9 September 1908 to 31 July 1911.

Rt Hon. Thomas, Baron Denman, P.C., G.C.M.G., K.C.V.O. From 31 July 1911 to 18 May 1914.

Rt Hon. Sir Ronald Craufurd Munro Ferguson (afterwards Viscount Novar of Raith), G.C.M.G. From 18 May 1914 to 6 October 1920.

Rt Hon. Henry William, Baron Forster of Lepe, P.C., G.C.M.G. From 6 October 1920 to 8 October 1925.

Rt Hon. John Lawrence, Baron Stonehaven, (afterwards 1st Viscount Stonehaven), P.C., G.C.M.G., D.S.O. From 8 October 1925 to 22 January 1931.

Rt Hon. Sir Isaac Alfred Isaacs, G.C.B., G.C.M.G., K.C. From 22 January 1931 to 23 January 1936.

Brigadier-General the Rt Hon. Alexander Gore Arkwright, Baron Gowrie (afterwards 1st Earl of Gowrie), V.C., P.C., G.C.M.G., C.B., D.S.O., K.St.J. From 23 January 1936 to 30 January 1945.

His Royal Highness Prince Henry William Frederick Albert, Duke of Gloucester, Earl of Ulster and Baron Culloden, K.G., P.C., K.T., K.P., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30 January 1945 to 11 March 1947.

Rt Hon. Sir William John McKell, G.C.M.G., Q.C. From 11 March 1947 to 8 May 1953.

Field Marshal Sir William Joseph Slim (afterwards Viscount Slim of Yarralumla), K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J. From 8 May 1953 to 2 February 1960.

Rt Hon. William Shepherd, Viscount Dunrossil, P.C., G.C.M.G., M.C., K.St.J., Q.C. From 2 February 1960 to 3 February 1961.

Rt Hon. William Philip, Viscount De L'Isle, V.C., P.C., G.C.M.G., G.C.V.O., K.St.J. From 3 August 1961 to 22 September 1965.

Rt Hon. Richard Gardiner, Baron Casey, P.C. G.C.M.G., C.H., D.S.O., M.C., K.St.J. From 22 September 1965.

Administrators. In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator of the Government of the Commonwealth. Administrators are appointed in the event of the death, illness or absence from Australia of the Governor-General, or for the period between the departure of a Governor-General and the arrival of his successor. The following is a list of such appointments.

ADMINISTRATORS

Rt Hon. Frederic John Napier, Baron Chelmsford (afterwards 1st Viscount Chelmsford), K.C.M.G. From 21 December 1909 to 27 January 1910.

Lieut.-Colonel the Rt Hon. Arthur Herbert Tennyson, Baron Somers, K.C.M.G., D.S.O., M.C. From 3 October 1930 to 22 January 1931.

Captain the Rt Hon. William Charles Arcedeckne, Baron Huntingfield, K.C.M.G., K.St.J. From 29 March 1938 to 24 September 1938.

Major-General Sir Winston Joseph Dugan (afterwards 1st Baron Dugan of Victoria), G.C.M.G., C.B., D.S.O. From 5 September 1944 to 30 January 1945; 19 January 1947 to 11 March 1947.

General[*] Sir John Northcott, K.C.M.G., C.B., M.V.O.[†] From 19 July 1951 to 14 December 1951; 30 July 1956 to 22 October 1956.

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[*] Lieutenant-General Sir John Northcott was granted honorary rank of General while administering the Government of the Commonwealth. [†] K.C.V.O., 1954.

ADMINISTRATORS—*continued*

General SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., K.C.M.G.,* K.C.V.O., D.S.O., K.ST.J. From 8 January 1959 to 16 January 1959; 4 February 1961 to 3 August 1961; 5 June 1962 to 3 October 1962; 21 November 1962 to 18 December 1962.

General SIR ERIC WINSLOW WOODWARD, K.C.M.G., K.C.V.O., C.B., C.B.E., D.S.O., K.ST.J. From 16 June 1964 to 30 August 1964

Colonel SIR HENRY ABEL SMITH, K.C.M.G., K.C.V.O., D.S.O., K.ST.J. From 7 May 1965 to 22 September 1965.

Governors of the States

Powers and functions. The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the Governor's Instructions given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions, either under the State Constitutions, conferred by Imperial Act, or by Act of the Parliament of the State.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown. In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

Holders of office. The names of the present (December 1966) State Governors are as follows.

STATE GOVERNORS, DECEMBER 1966

New South Wales—SIR ARTHUR RODEN CUTLER, V.C., K.C.M.G., C.B.E., K.ST.J.

Victoria—MAJOR-GENERAL SIR ROHAN DELACOMBE, K.C.M.G., K.B.E., C.B., D.S.O., K.St.J.

Queensland—SIR ALAN JAMES MANSFIELD, K.C.M.G.

South Australia—LIEUT.-GENERAL SIR EDRIC MONTAGUE BASTYAN, K.C.M.G., K.C.V.O., K.B.E., C.B.

Western Australia—MAJOR-GENERAL SIR DOUGLAS ANTHONY KENDREW, K.C.M.G., C.B., C.B.E., D.S.O.

Tasmania—LIEUT.-GENERAL SIR CHARLES HENRY GAIRDNER, K.C.M.G., K.C.V.O., K.B.E., C.B.

The Cabinet and executive government

Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as 'Cabinet' or 'responsible' government. Its essence is that the head of the State (Her Majesty the Queen, and her representative, the Governor-General or Governor) should perform governmental acts on the advice of her Ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The Constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained on page 56. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

The Cabinet. This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, until January 1956, all Ministers were members of the Cabinet. Since then, however, although in the States all Ministers are members of the Cabinet, the Commonwealth ministry is made up of twelve senior Ministers, who constitute the Cabinet, and other Ministers† of non-Cabinet rank who attend meetings of the Cabinet only when required, as, for example, when the business of the Cabinet concerns their departments. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

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* G.C.M.G., 1963. † Fourteen, as from 28 February 1967.

The Executive Council. This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of the Cabinet are, where necessary, given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

The appointment of Ministers. Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

Ministers in Upper and Lower Houses. The following table shows the distribution of Ministers in the Houses of each Parliament in December 1966.

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES, DECEMBER 1966

Ministers with seats in—	Cwlth (*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
The Upper House .	5	2	4	(*b*)	3	3	1	18
The Lower House .	20	14	11	13	6	9	8	81
Total . . .	**25**	**16**	**15**	**13**	**9**	**12**	**9**	**99**

(*a*) By the *Ministers of State Act* 1967 the number of Ministers was increased to twenty-six from 28 February 1967. (*b*) Abolished in 1922.

Commonwealth Ministries

Names and tenure of office, 1901 *to* 1966. The following list shows the name of each Commonwealth Ministry to hold office since 1 January 1901, and the limits of its term of office.

COMMONWEALTH MINISTRIES, 1901 TO 1966

(i) BARTON MINISTRY, 1 January 1901 to 24 September 1903.
(ii) DEAKIN MINISTRY, 24 September 1903 to 27 April 1904.
(iii) WATSON MINISTRY, 27 April 1904 to 17 August 1904.
(iv) REID-MCLEAN MINISTRY, 18 August 1904 to 5 July 1905.
(v) DEAKIN MINISTRY, 5 July 1905 to 13 November 1908.
(vi) FISHER MINISTRY, 13 November 1908 to 1 June 1909.
(vii) DEAKIN MINISTRY, 2 June 1909 to 29 April 1910.
(viii) FISHER MINISTRY, 29 April 1910 to 24 June 1913.
(ix) COOK MINISTRY, 24 June 1913 to 17 September 1914.
(x) FISHER MINISTRY, 17 September 1914 to 27 October 1915.
(xi) HUGHES MINISTRY, 27 October 1915 to 14 November 1916.
(xii) HUGHES MINISTRY, 14 November 1916 to 17 February 1917.
(xiii) HUGHES MINISTRY, 17 February 1917 to 10 January 1918.
(xiv) HUGHES MINISTRY, 10 January 1918 to 9 February 1923.
(xv) BRUCE-PAGE MINISTRY, 9 February 1923 to 22 October 1929.
(xvi) SCULLIN MINISTRY, 22 October 1929 to 6 January 1932.
(xvii) LYONS MINISTRY, 6 January 1932 to 7 November 1938.
(xviii) LYONS MINISTRY, 7 November 1938 to 7 April 1939.

Commonwealth Ministries, 1901 to 1966—*continued*

(xix) Page Ministry, 7 April 1939 to 26 April 1939.
(xx) Menzies Ministry, 26 April 1939 to 14 March 1940.
(xxi) Menzies Ministry, 14 March 1940 to 28 October 1940.
(xxii) Menzies Ministry, 28 October 1940 to 29 August 1941.
(xxiii) Fadden Ministry, 29 August 1941 to 7 October 1941.
(xxiv) Curtin Ministry, 7 October 1941 to 21 September 1943.
(xxv) Curtin Ministry, 21 September 1943 to 6 July 1945.
(xxvi) Forde Ministry, 6 July 1945 to 13 July 1945.
(xxvii) Chifley Ministry, 13 July 1945 to 1 November 1946.
(xxviii) Chifley Ministry, 1 November 1946 to 19 December 1949.
(xxix) Menzies Ministry, 19 December 1949 to 11 May 1951.
(xxx) Menzies Ministry, 11 May 1951 to 11 January 1956.
(xxxi) Menzies Ministry, 11 January 1956 to 10 December 1958.
(xxxii) Menzies Ministry, 10 December 1958 to 18 December 1963.
(xxxiii) Menzies Ministry, 18 December 1963 to 26 January 1966.
(xxxiv) Holt Ministry, 26 January 1966 to 14 December 1966.
(xxxv) Holt Ministry, 14 December 1966.

Names of holders of Commonwealth Ministerial office, to 31 *December* 1966. In Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9 February 1923 to 22 October 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contains a list, commencing with the Bruce-Page Ministry, which covers the period between the date on which it assumed power, 9 February 1923, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period.

This issue shows only particulars of the latest Holt Ministry, as constituted on 14 December 1966. For subsequent changes, *see* Appendix.

HOLT MINISTRY—FROM 14 DECEMBER 1966

(The State in which each Minister's electorate is situated is shown in parenthesis)

**Prime Minister*—
The Rt Hon. H. E. Holt, M.P. (Vic.).

**Deputy Prime Minister and Minister for Trade and Industry*—
The Rt Hon. J. McEwen, M.P. (Vic.).

**Treasurer*—
The Rt Hon. W. McMahon, M.P. (N.S.W.).

**Minister for External Affairs*—
The Rt Hon. Paul Hasluck, M.P. (W.A.).

**Minister for Defence*—
The Hon. Allen Fairhall, M.P. (N.S.W.).

**Minister for the Interior*—
The Hon. J. D. Anthony, M.P. (N.S.W.).

**Minister for Supply and Leader of the Government in the Senate*—
Senator the Hon. N. H. D. Henty (Tas.).

**Minister for Primary Industry*—
The Rt Hon. C. F. Adermann, M.P. (Qld).

**Postmaster-General and Vice-President of the Executive Council*—
The Hon. A. S. Hulme, M.P. (Qld).

**Minister for National Development*—
The Hon. David Fairbairn, D.F.C., M.P. (N.S.W.).

**Minister for Education and Science*—
Senator the Hon. J. G. Gorton (Vic.).

**Minister for Labour and National Service*—
The Hon. L. H. E. Bury, M.P. (N.S.W.).

Minister for Shipping and Transport—
The Hon. Gordon Freeth, M.P. (W.A.).

Minister for Territories—
The Hon. C. E. Barnes, M.P. (Qld).

Minister for Civil Aviation—
The Hon. R. W. C. Swartz, M.B.E., E.D., M.P. (Qld).

Minister for Immigration and Leader of the Government in the House of Representatives—
The Hon. B. M. Snedden, Q.C., M.P. (Vic.).

Minister for Health—
The Hon. A. J. Forbes, M.C., M.P. (S.A.).

Minister for Air and assisting the Treasurer—
The Hon. Peter Howson, M.P. (Vic.).

Minister for Customs and Excise—
Senator the Hon. Ken Anderson (N.S.W.).

Minister for Repatriation—
Senator the Hon. G. Colin McKellar (N.S.W.).

Minister for Social Services and assisting the Minister for Trade and Industry—
The Hon. Ian Sinclair, M.P. (N.S.W.).

Minister for Housing—
Senator the Hon. Dame Annabelle Rankin, D.B.E. (Qld).

Minister for the Army—
The Hon. Malcolm Fraser, M.P. (Vic.).

Attorney-General—
The Hon. N. H. Bowen, Q.C., M.P. (N.S.W.).

Minister for the Navy, and under the Minister for Trade and Industry, Minister-in-Charge of Tourist Activities—
The Hon. D. L. Chipp, M.P. (Vic.).

†*Minister for Works*—
The Hon. C. R. Kelly, M.P. (S.A.).

* Minister in the Cabinet. † As from 28 February 1967.

Year Book No. 38 contains a statement listing the Commonwealth Departments in existence during the period 1 April 1925 to 31 December 1949 and the names of the Ministers of State who had administered them (pages 74–9). This is in continuation of a similar statement covering the period from the inauguration of the Commonwealth Government to 1925 which appears in Year Book No. 18.

State Ministries, December 1966

The names of the members of the Ministries in each State in December 1966 are shown in the following statement. For subsequent changes, *see* Appendix.

STATE MINISTRIES, DECEMBER 1966

NEW SOUTH WALES

Ministry (from 13 *May* 1965)

Premier and Treasurer—
The Hon. R. W. Askin, M.L.A.

Deputy Premier, Minister for Education, and Minister for Science—
The Hon. C. B. Cutler, E.D., M.L.A.

Minister for Labour and Industry, Chief Secretary, and Minister for Tourist Activities—
The Hon. E. A. Willis, M.L.A.

Minister for Child Welfare, Minister for Social Welfare, Advisory Minister for Transport, and Vice-President of the Executive Council—
The Hon. A. D. Bridges, M.L.C.

Minister for Agriculture—
The Hon. W. A. Chaffey, M.L.A.

Attorney-General—
The Hon. K. M. McCaw, M.L.A.

Minister for Local Government and Minister for Highways—
The Hon. P. H. Morton, M.L.A.

Minister for Public Works—
The Hon. D. Hughes, M.L.A.

Minister for Transport—
The Hon. M. A. Morris, M.L.A.

Minister for Decentralisation and Development—
The Hon. J. B. M. Fuller, M.L.C.

Minister for Lands and Minister for Mines—
The Hon. T. L. Lewis, M.L.A.

Minister for Conservation—
The Hon. J. G. Beale, M.L.A.

Minister for Housing and Minister for Co-operative Societies—
The Hon. S. T. Stephens, M.L.A.

Minister of Justice—
The Hon. J. C. Maddison, M.L.A.

Minister for Health—
The Hon. A. H. Jago, M.L.A.

Assistant Minister for Education—
The Hon. W. C. Fife, M.L.A.

VICTORIA

Ministry (from 7 *June* 1955)

(*Portfolios as from* 1 *December* 1965)

Premier and Treasurer—
The Hon. Sir Henry Bolte, K.C.M.G., M.P.

Chief Secretary and Attorney-General—
The Hon. A. G. Rylah, C.M.G., E.D., M.P.

Minister of Agriculture—
The Hon. G. L. Chandler, C.M.G., M.L.C.

Minister of Housing and Minister of Forests—
The Hon. L. H. S. Thompson, M.L.C.

Minister of Education—
The Hon. J. S. Bloomfield, Q.C., M.P.

Minister for Fuel and Power—
The Hon. G. O. Reid, M.P.

Minister of Public Works—
The Hon. M. V. Porter, M.P.

Minister of Transport—
The Hon. E. R. Meagher, M.B.E., E.D., M.P.

Minister for Local Government—
The Hon. R. J. Hamer, E.D., M.L.C.

Minister of Lands, Minister of Soldier Settlement, and Minister for Conservation—
The Hon. J. C. M. Balfour, M.P.

Minister of Water Supply and Minister of Mines—
The Hon. T. A. Darcy, M.P.

Minister of Immigration—
The Hon. J. F. Rossiter, M.P.

Minister of Labour and Industry—
The Hon. V. F. Wilcox, M.P.

Minister of Health—
The Hon. V. O. Dickie, M.L.C.

Minister of State Development—
The Hon. J. W. Manson, M.P.

STATE MINISTRIES, 1966—*continued*

QUEENSLAND

Ministry (from 14 *June* 1963)
(*Portfolios as from* 11 *March* 1965)

Premier and Minister for State Development, and Vice-President of the Executive Council—
THE HON. G. F. R. NICKLIN, M.M., M.L.A.

Treasurer—
THE HON. G. W. W. CHALK, M.L.A.

Minister for Education—
THE HON. J. C. A. PIZZEY, M.L.A.

Minister for Industrial Development—
THE HON. A. T. DEWAR, M.L.A.

Minister for Lands—
THE HON. A. R. FLETCHER, M.L.A.

Minister for Local Government and Conservation—
THE HON. H. RICHTER, M.L.A.

Minister for Primary Industries—
THE HON. J. A. ROW, M.L.A.

Minister for Works and Housing—
THE HON. J. BJELKE-PETERSEN, M.L.A.

Minister for Justice and Attorney-General—
THE HON. P. R. DELAMOTHE, O.B.E., M.L.A.

Minister for Health—
THE HON. S. D. TOOTH, M.L.A.

Minister for Labour and Tourism—
THE HON. J. D. HERBERT, M.L.A.

Minister for Mines and Main Roads—
THE HON. R. E. CAMM, M.L.A.

Minister for Transport—
THE HON. W. E. KNOX, M.L.A

SOUTH AUSTRALIA

Ministry (from 10 *March* 1965)

Premier, Treasurer, Minister of Immigration, and Minister of Housing—
THE HON. F. H. WALSH, M.P.

Chief Secretary and Minister of Health—
THE HON. A. J. SHARD, M.L.C.

Minister of Works and Minister of Marine—
THE HON. C. D. HUTCHENS, M.P.

Attorney-General, Minister of Aboriginal Affairs, and Minister of Social Welfare—
THE HON. D. A. DUNSTAN, Q.C., M.P.

Minister of Education—
THE HON. R. R. LOVEDAY, M.P.

Minister of Local Government, Minister of Roads, and Minister of Mines—
THE HON. S. C. BEVAN, M.L.C.

Minister of Labour and Industry and Minister of Transport—
THE HON. A. F. KNEEBONE, M.L.C.

Minister of Agriculture and Minister of Forests—
THE HON. G. A. BYWATERS, M.P.

Minister of Lands, Minister of Repatriation, and Minister of Irrigation—
THE HON. J. D. CORCORAN, M.P.

WESTERN AUSTRALIA

Ministry (from 17 *August* 1965)

Premier, Treasurer, and Minister for Tourists—
THE HON. D. BRAND, M.L.A.

Deputy Premier, Minister for Agriculture, and Minister for Electricity—
THE HON. C. D. NALDER, M.L.A.

Minister for Industrial Development, Minister for Railways, and Minister for the North-West—
THE HON. C. W. M. COURT, O.B.E., M.L.A.

Minister for Education and Minister for for Native Welfare—
THE HON. E. H. M. LEWIS, M.L.A.

Minister for Mines, Minister for Justice, and Leader of the Government in the Legislative Council—
THE HON. A. F. GRIFFITH, M.L.C.

Minister for Lands, Minister for Forests, and Minister for Immigration—
THE HON. W. S. BOVELL, M.L.A.

Minister for Works and Minister for Water Supplies—
THE HON. R. HUTCHINSON, D.F.C., M.L.A.

Minister for Local Government, Minister for Town Planning, and Minister for Child Welfare—
THE HON. L. A. LOGAN, M.L.C.

Chief Secretary, Minister for Police, and Minister for Traffic—
THE HON. J. F. CRAIG, M.L.A.

Minister for Housing and Minister for Labour—
THE HON. D. H. O'NEIL, M.L.A.

Minister for Transport—
THE HON. R. J. O'CONNOR, M.L.A.

Minister for Health, and Minister for Fisheries and Fauna—
THE HON. G. C. MACKINNON, M.L.C.

State Ministries, 1966—*continued*

TASMANIA

Ministry (from 13 *May* 1964)

Premier, Treasurer, and Minister for Mines—
The Hon. E. E. Reece, M.H.A.

Deputy Premier and Attorney-General—
The Hon. R. F. Fagan, M.H.A.

Minister for Education—
The Hon. W. A. Neilson, M.H.A.

Minister for Lands and Works—
The Hon. D. A. Cashion, M.H.A.

Minister for Agriculture and Tourists—
The Hon. A. C. Atkins, M.H.A.

Chief Secretary—
The Hon. B. K. Miller, M.L.C.

Minister for Housing and Forests—
The Hon. S. V. Ward, M.H.A.

Minister for Health—
The Hon. M. G. Everett, Q.C., M.H.A.

Minister for Transport and Police—
The Hon. H. J. McLoughlin, M.H.A.

Leaders of the Opposition, Commonwealth and State Parliaments, December 1966

The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in December 1966

LEADERS OF THE OPPOSITION, DECEMBER 1966

Commonwealth—The Hon. A. A. Calwell, M.P.(*a*)
New South Wales—J. B. Renshaw, M.L.A.
Victoria—The Hon. C. P. Stoneham, M.P.
Queensland—J. W. Houston, M.L.A.
South Australia—R. S. Hall, M.P.
Western Australia—The Hon. A. R. G. Hawke, M.L.A.
Tasmania—The Hon. W. A. Bethune, M.H.A.

(*a*) E. G. Whitlam, Q.C., M.P., from 8 February 1967.

Numbers and salaries of Commonwealth Ministers

Under sections 65 and 66, respectively, of the Constitution of the Commonwealth the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000 ($24,000), each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently the number and salaries have been increased from time to time, and from 1967 the annual sum payable for salaries has been fixed at $197,300 and the number of Ministers at twenty-six. An additional ministerial allowance of $8,000 a year has been payable to the Prime Minister since 1964, and an additional ministerial allowance of $3,600 a year for senior Ministers and $3,000 a year for junior Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* page 68).

Parliaments and elections

The Commonwealth Parliaments

The first Parliament of the Commonwealth was convened by proclamation dated 29 April 1901 by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9 May 1901 by H.R.H. the Duke of Cornwall and York. The Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since federation.

COMMONWEALTH PARLIAMENTS

Number of Parliament	Date of opening	Date of dissolution
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	30 July 1914(*a*)
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	6 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	19 March 1951(*a*)
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	31 October 1966
Twenty-sixth	21 February 1967	

(*a*) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under section 57 of the Constitution.

There have been twenty-five complete Parliaments since Federation. Until 1927 the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the Duke of York on 9 May 1927.

The twenty-fifth Parliament opened on 25 February 1964 and ended on 31 October 1966 when the House of Representatives was dissolved. Elections for the House of Representatives were held on 26 November 1966. Elections were also held on the same date to fill casual vacancies in the Senate for each of the States of New South Wales, Victoria, Queensland, and Western Australia. Particulars of electors and voting are given in the Appendix. For particulars of electors enrolled and of electors who voted in the several States and Territories at previous Commonwealth elections, *see* Year Book No. 52 and earlier issues.

A special article describing the Commonwealth Parliament, its functions and procedure, prepared by the Clerk of the Senate and the Clerk of the House of Representatives, appears in Year Book No. 49, pages 65–71.

Qualifications for membership and for franchise—Commonwealth Parliament

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age and not disentitled on other grounds, who has lived in Australia for six months continuously. Residence in a subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to an Aboriginal native of Australia. A member of the Defence Forces on service outside Australia who is a British subject not less than 21 years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections, whether enrolled or not. In 1966 the franchise was extended to entitle a person who is less than twenty-one years of age, who has lived in Australia for six months continuously and who is, or has been, on 'special service' outside Australia as a member of the Defence Forces, to vote at elections as if his name appeared on the roll. 'Special service' takes the same meaning as that term in the Repatriation (Special Overseas Service) Act and means, in relation to a person, service during a period when he is outside Australia and he or his unit is allotted for special duty in a special area.

The principal reasons for disqualification of persons otherwise eligible as members of either Commonwealth House are: membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than twenty-five persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or persons who are holders of temporary entry permits under the *Migration Act* 1958-1966 or are prohibited immigrants under that Act, are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise. Aborigines are entitled to vote at both Commonwealth and State elections in all States.

Commonwealth Parliaments and elections

From the establishment of the Commonwealth until 1949 the Senate consisted of thirty-six members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament, and, as the population of the Commonwealth had more than doubled since its inception, the Parliament passed the *Representation Act* 1948 which provided that there should be ten Senators from each State instead of six, increasing the total to sixty Senators, thus enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation.

In accordance with the Constitution the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Consequently, in terms of the Constitution and the Representation Act, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows: New South Wales—from 28 to 47; Victoria—from 20 to 33; Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 and the total was increased from 74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. This was carried out by distribution commissioners in each State on a quota basis, but taking into account community or diversity of interest, means of communication, physical features, existing boundaries of divisions and subdivisions, and State electoral boundaries.

The population as disclosed by the Census taken on 30 June 1954 necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10 December 1955 has been: New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122. A redistribution of the States into electoral divisions was effected by distribution commissioners appointed for each State.

The population as disclosed by the Census taken on 30 June 1961 revealed that, under the provisions of the Representation Act, New South Wales, Queensland, and Western Australia would each lose one member in the House of Representatives, while Victoria would gain a member. The distribution commissioners' reports were duly laid before both Houses of Parliament, but the Government decided not to proceed with the proposals and announced that it would amend the Representation Act. In November 1964 the formula provided by Section 10 of the Representation Act for determining the number of members of the House of Representatives was amended so as to give a State an additional member for 'any portion of a quota'. The effect of that amendment would have been that at the next redistribution, Victoria and South Australia would each gain one member while all other States would retain their existing representation. However, no fresh redistribution was effected prior to the 1966 Census. When the population as at the 1966 Census has been ascertained, the Chief Electoral Officer will determine afresh the number of members of the House of Representatives to be chosen for the several States, based on that Census. This new representation will then become effective at the next general election of members of the House of Representatives following the next redistribution.

Since the general election of 1922 the Northern Territory has been represented by one member in the House of Representatives, ane the Australian Capital Territory has had similar representation since the elections of 1949. The member for the Australian Capital Territory has had full voting rights since the first sitting of the twenty-sixth Parliament. However, while the member for the Northern Territory may join in the debates he is not entitled to vote except on any proposed law which relates solely to the Territory or on a motion for the disallowance of a regulation made under an Ordinance of the Territory and on any amendment of such a motion.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representatives the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Year Book.

The *Commonwealth Electoral Act* 1948, introduced with the *Representation Act* 1948 to enlarge the Commonwealth Parliament (*see* page 62), changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. For a description of the system, *see* Year Book No. 38, pages 82–3. The system of voting for both the Senate and the House of Representatives is preferential.

Particulars of voting at Senate elections and elections for the House of Representatives up to 1964 appear in earlier issues of the Year Book, and additional information is available in the *Statistical Returns* issued by the Chief Electoral Officer following each election. Particulars of the voting at the 1966 elections are given in the Appendix.

The state of the parties in each House following the elections at the end of 1966 was: *Senate*—Liberal Party 22; Country Party, 7; Australian Labor Party, 28; Australian Democratic Labor Party, 2; Independent, 1; *House of Representatives*—Liberal Party, 61; Country Party 21 (including the Northern Territory member with restricted voting rights); Australian Labor Party, 41; Independent, 1.

Members of the Commonwealth Parliament

The following is a list of Senators and Members of the House of Representatives of the Commonwealth Parliament as at 1 January 1967. Changes since that date are set out in the Appendix to this volume. Party affiliation is indicated by the use of the following abbreviations:

A.D.L.P.—Australian Democratic Labor Party.

A.L.P.—Australian Labor Party.

C.P.—Australian Country Party.

Ind.—Independent.

Lib.—Liberal Party of Australia.

MEMBERS OF THE COMMONWEALTH PARLIAMENT, 1 JANUARY 1967(*a*)

THE SENATE

President:

SENATOR THE HON. SIR ALISTER MCMULLIN,
K.C.M.G.

Chairman of Committees:

SENATOR T. C. DRAKE-BROCKMAN, D.F.C.

Leader of the Government in the Senate:

SENATOR THE HON. N. H. D. HENTY

Leader of the Opposition in the Senate:

SENATOR D. R. WILLESEE (*b*)

(*a*) For later changes *see* Appendix. (*b*) Senator L. K. Murphy, Q.C. from 21 February 1967.

MEMBERS OF THE COMMONWEALTH PARLIAMENT, 1 JANUARY 1967(*a*)—*continued*

THE SENATE—*continued*

Senator	*State*	*Term Expires 30 June*
Anderson, Hon. K. M. (Lib.)	N.S.W.	1971
Benn, A. M. (A.L.P.)	Qld	1968
Bishop, R. (A.L.P.)	S.A.	1968
Branson, G. H. (Lib.)	W.A.	1971
Breen, Marie F., O.B.E. (Lib.)	Vic.	1968
Bull, T. L., O.B.E. (C.P.)	N.S.W.	1971
Cant, H. G. J. (A.L.P.)	W.A.	1971
Cavanagh, J. L. (A.L.P.)	S.A.	1968
Cohen, S. H., Q.C. (A.L.P.)	Vic.	1968
Cooper, Hon. Sir Walter, M.B.E. (C.P.)	Qld	1968
Cormack, M. C. (Lib.)	Vic.	1968
Cotton, R. C. (Lib.)	N.S.W.	1968
Davidson, G. S. (Lib.)	S.A.	1971
Devitt, D. M. (A.L.P.)	Tas.	1971
Dittmer, F. (A.L.P.)	Qld	1971
Drake-Brockman, T. C., D.F.C. (C.P.)	W.A.	1971
Drury, A. J. (A.L.P.)	S.A.	1971
Fitzgerald, J. F. (A.L.P.)	N.S.W.	1968
Gair, Hon. V. C. (A.D.L.P.)	Qld	1971
Gorton, Hon. J. G. (Lib.)	Vic.	1971
Hannaford D. C. (Lib.)(*b*)	S.A.	1968
Heatley, W. C. (Lib.)	Qld	1968
Hendrickson, A. (A.L.P.)	Vic.	1971
Henty, Hon. N. H. D. (Lib.)	Tas.	1968
Keeffe, J. B. (A.L.P.)	Qld	1971
Kennelly, Hon. P. J. (A.L.P.)	Vic.	1971
Lacey, R. H. (A.L.P.)	Tas.	1971
Laught, K. A. (Lib.)	S.A.	1971
Lawrie, A. G. E. (C.P.)	Qld	1971
Lillico, A. E. D. (Lib.)	Tas.	1971
McClelland, D. (A.L.P.)	N.S.W.	1968
McKellar, Hon. G. C. (C.P.)	N.S.W.	1968
McKenna, Hon. N. E. (A.L.P.)	Tas.	1968
McManus, F. P. (A.D.L.P.)	Vic.	1971
McMullin, Hon. Sir Alister, K.C.M.G. (Lib.)	N.S.W.	1971
Marriott, J. E. (Lib.)	Tas.	1971
Mattner, E. W., M.C., D.C.M., M.M. (Lib.)	S.A.	1968
Morris, Hon. K. J., C.M.G. (Lib.)	Qld	1968
Mulvihill, J. A. (A.L.P.)	N.S.W.	1971
Murphy, L. K., Q.C. (A.L.P.)	N.S.W.	1968
Nicholls, T. M. (A.L.P.)	S.A.	1968
O'Byrne, J. (A.L.P.)	Tas.	1971
Ormonde, J. P. (A.L.P.)	N.S.W.	1971
Poke, A. G. (A.L.P.)	Tas.	1968
Poyser, A. G. (A.L.P.)	Vic.	1968
Prowse, E. W. (C.P.)	W.A.	1968
Rankin, Hon. Dame Annabelle, D.B.E. (Lib.)	Qld	1968
Ridley, C. F. (A.L.P.)	S.A.	1971
Scott, M. F. (Lib.)	W.A.	1971
Sim, J. P. (Lib.)	W.A.	1968
Tangney, Dorothy M. (A.L.P.)	W.A.	1968
Toohey, J. P. (A.L.P.)	S.A.	1971
Turnbull, R. J. D. (Ind.)	Tas.	1968
Webster, J. J. (C.P.)	Vic.	1968
Wedgwood, Ivy E. (Lib.)	Vic.	1971
Wheeldon, J. M. (A.L.P.)	W.A.	1971
Wilkinson, L. D. (A.L.P.)	W.A.	1968
Willesee, D. R. (A.L.P.)	W.A.	1968
Wood, I. A. C. (Lib.)	Qld	1971
Wright, R. C. (Lib.)	Tas.	1968

THE HOUSE OF REPRESENTATIVES

(Triennial Parliaments—Last General Election 26 November 1966)

Speaker:

Vacant.(*c*)

Chairman of Committees:

P. E. Lucock, M.P.

Leader of the Opposition:

The Hon. A. A. Calwell, M.P.(*d*)

(*a*) For later changes *see* Appendix. (*b*) From commencement of 1967 session resigned from Liberal Party and voted as Independent. (*c*) W. J. Aston, M.P., elected on 21 February 1967. (*d*) E. G. Whitlam, Q.C., M.P. from 8 February 1967.

MEMBERS OF THE COMMONWEALTH PARLIAMENT, 1 JANUARY 1967(*a*)—*continued*

THE HOUSE OF REPRESENTATIVES—*continued*

Member	*Constituency*
Adermann, Rt Hon. C. F. (C.P.)	Fisher (Q.)
Allan, A. I. (C.P.)	Gwydir (N.S.W.)
Anthony, Hon. J. D. (C.P.)	Richmond (N.S.W.)
Armstrong, A. A., M.C. (C.P.)	Riverina (N.S.W.)
Arthur, W. T. (Lib.)	Barton (N.S.W.)
Aston, W. J. (Lib.)	Phillip (N.S.W.)
Barnard, L. H. (A.L.P.)	Bass (T.)
Barnes, Hon. C. E. (C.P.)	McPherson (Q.)
Bate, H. J. (Lib.)	Macarthur (N.S.W.)
Beaton, N. L. (A.L.P.)	Bendigo (V.)
Beazley, K. E. (A.L.P.)	Fremantle (W.A.)
Benson, S. J., R.D. (Ind.)	Batman (V.)
Birrell, F. R. (A.L.P.)	Port Adelaide (S.A.)
Bonnett, R. N. (Lib.)	Herbert (Q.)
Bosman, L. L. (Lib.)	St. George (N.S.W.)
Bowen, Hon. N. H., Q.C. (Lib.)	Parramatta (N.S.W.)
Bridges-Maxwell, C. W. (Lib.)	Robertson (N.S.W.)
Brownbill, Miss K. C. M. (Lib.)	Kingston (S.A.)
Bryant, G. M. (A.L.P.)	Wills (V.)
Buchanan, A. A. (Lib.)	McMillan (V.)
Bury, Hon. L. H. E. (Lib.)	Wentworth (N.S.W.)
Cairns, J. F. (A.L.P.)	Yarra (V.)
Cairns, K. M. K.(Lib.)	Lilley (Q.)
Calder, S. E., D.F.C. (C.P.)	Northern Territory
Calwell, Hon. A. A. (A.L.P.)	Melbourne (V.)
Cameron, C. R. (A.L.P.)	Hindmarsh (S.A.)
Cameron, D. M. (Lib.)	Griffith (Q.)
Chaney, Hon. F. C., A.F.C. (Lib.)	Perth (W.A.)
Chipp, Hon. D. L. (Lib.)	Higinbotham (V.)
Clark, J. J. (A.L.P.)	Darling (N.S.W.)
Cleaver, R. (Lib.)	Swan (W.A.)
Collard, F. W. (A.L.P.)	Kalgoorlie (W.A.)
Connor, R. F. X. (A.L.P.)	Cunningham (N.S.W.)
Cope, J. F. (A.L.P.)	Watson (N.S.W.)
Corbett, J. (C.P.)	Maranoa (Q).
Costa, D.E. (A.L.P.)	Banks (N.S.W.)
Courtnay, F. (A.L.P.)	Darebin (V.)
Cramer, Hon. Sir John (Lib.)	Bennelong (N.S.W.)
Crean, F. (A.L.P.)	Melbourne Ports (V.)
Cross, M. D. (A.L.P.)	Brisbane (Q.)
Curtin, D. J. (A.L.P.)	Kingsford-Smith (N.S.W.)
Daly, F. M. (A.L.P.)	Grayndler (N.S.W.)
Davies, R. (A.L.P.)	Braddon (T.)
Devine, L. T. (A.L.P.)	East Sydney (N.S.W.)
Dobie, J. D. M. (Lib.)	Hughes (N.S.W.)
Drury, E. N. (Lib.)	Ryan (Q.)
Duthie, G. W. A. (A.L.P.)	Wilmot (T.)
England, J. A., E.D. (C.P.)	Calare (N.S.W.)
Erwin, G. D. (Lib.)	Ballaarat (V.)
Failes, L. J. (C.P.)	Lawson (N.S.W.)
Fairbairn, Hon. D. E., D.F.C. (Lib.)	Farrer (N.S.W.)
Fairhall, Hon. A. (Lib.)	Paterson (N.S.W.)
Forbes, Hon. A. J., M.C. (Lib.)	Barker (S.A.)
Fox, E. M. C. (Lib.)	Henty (V.)
Fraser, Hon. J. M. (Lib.)	Wannon (V.)
Fraser, J. R. (A.L.P.)	Aust. Cap. Terr.
Freeth, Hon. G. (Lib.)	Forrest (W.A.)
Fulton, W. J. (A.L.P.)	Leichhardt (Q.)
Gibbs, W. T. (Lib.)	Bowman (Q.)
Gibson, A. (Lib.)	Denison (T.)
Giles, G. O'H. (Lib.)	Angas (S.A.)
Graham, B. W. (Lib.)	North Sydney (N.S.W.)
Gray, G. H. (A.L.P.)	Capricornia (Q.)
Griffiths, C. E. (A.L.P.)	Shortland(N.S.W.)
Hallett, J. M. (C.P.)	Canning (W.A.)
Hansen, B. P. (A.L.P.)	Wide Bay (Q.)
Harrison, E. J. (A.L.P.)	Blaxland (N.S.W.)
Hasluck, Rt Hon. P. M. C. (Lib.)	Curtin (W.A.)
Haworth, Hon. W. C. (Lib.)	Isaacs (V.)
Hayden, W. G. (A.L.P.)	Oxley (Q.)
Holt, Rt Hon. H. E. (Lib.)	Higgins (V.)
Holten, R. McN. (C.P.)	Indi (V.)
Howson, Hon. P. (Lib.)	Fawkner (V.)
Hughes, T. E. F., Q.C. (Lib.)	Parkes (N.S.W.)
Hulme, Hon. A. S. (Lib.)	Petrie (Q.)
Irwin, L. H., M.B.E. (Lib.)	Mitchell (N.S.W.)
James, A. W. (A.L.P.)	Hunter (N.S.W.)
Jarman, A. W. (Lib.)	Deakin (V.)
Jess, J. D. (Lib.)	La Trobe (V.)
Jessop, D. S. (Lib.)	Grey (S.A.)
Jones, A. T. (Lib.)	Adelaide (S.A.)
Jones, C. K. (A.L.P.)	Newcastle (N.S.W.)
Katter, R. C. (C.P.)	Kennedy (Q.)
Kelly, Hon. C. R. (Lib.)	Wakefield (S.A.)
Kent Hughes, Hon. Sir Wilfrid, K.B.E., M.V.O., M.C., E.D. (Lib.)	Chisholm (V.)
Killen, D. J. (Lib.)	Moreton (Q.)
King, R. S (C.P.)	Wimmera (V.)
Lee, M. W. (Lib.)	Lalor (Vic.)
Luchetti, A. S. (A.L.P.)	Macquarie (N.S.W.)
Lucock, P. E. (C.P.)	Lyne (N.S.W.)
Lynch, P. R. (Lib.)	Flinders (Vic.)
Mackay, M. G. (Lib.)	Evans (N.S.W.)

(*a*) For later changes *see* Appendix.

MEMBERS OF THE COMMONWEALTH PARLIAMENT, 1 JANUARY 1967(*a*)—*continued*

THE HOUSE OF REPRESENTATIVES—*continued*

Member	*Constituency*
Maisey, D. W. (C.P.)	Moore (W.A.)
McEwen, Rt Hon. J. (C.P.)	Murray (V.)
McIvor, H. J. (A.L.P.)	Gellibrand (V.)
McLeay, J. E. (Lib.)	Boothby (S.A.)
McMahon, Rt Hon. W. (Lib.)	Lowe (N.S.W.)
Minogue, D. (A.L.P.)	West Sydney (N.S.W.)
Munro, D. R. R. (Lib.)	Eden-Monaro (N.S.W.)
Nicholls, M. H. (A.L.P.)	Bonython (S.A.)
Nixon, P. J. (C.P.)	Gippsland (V.)
O'Connor, W. P. (A.L.P.)	Dalley (N.S.W.)
Opperman, Hon. H. F. O.B.E. (Lib.)(*b*)	Corio (V.)
Patterson R. A. (A.L.P.)	Dawson (Q.)
Peacock, A. S. (Lib.)	Kooyong (Vic.)
Pearsall, T. G. (Lib.)	Franklin (Tas.)
Peters, E. W. (A.L.P.)	Scullin (V.)
Pettitt, J. A. (C.P.)	Hume (N.S.W.)
Robinson, I. L. (C.P.)	Cowper (N.S.W.)
Sinclair, Hon. I. McC. (C.P.)	New England (N.S.W.)
Snedden, Hon. B. M., Q.C. (Lib.)	Bruce (V.)
Stewart, F. E. (A.L.P.)	Lang (N.S.W.)
St. John, E. H., Q.C. (Lib.)	Warringah (N.S.W.)
Stokes, P. W. C., E.D. (Lib.)	Maribyrnong (V.)
Street, A. A. (Lib.)	Corangamite (V.)
Swartz, Hon. R. W. C., M.B.E., E.D. (Lib.)	Darling Downs (Q.)
Turnbull, W. G. (C.P.)	Mallee (V.)
Turner, H. B. (Lib.)	Bradfield (N.S.W.)
Uren, T. (A.L.P.)	Reid (N.S.W.)
Webb, C. H. (A.L.P.)	Stirling (W.A.)
Wentworth, W.C. (Lib.)	Mackellar (N.S.W.)
Whitlam, E. G., Q.C. (A.L.P.)	Werriwa (N.S.W.)
Whittorn, R. H. (Lib.)	Balaclava (V.)
Wilson, I. B. C. (Lib.)	Sturt (S.A.)

(*a*) For later changes *see* Appendix. (*b*) Appointed High Commissioner to Malta, 10 February 1967.

Commonwealth referendums

In accordance with section 128 of the Constitution any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved also by a majority of the electors in a majority of the States and by a majority of all the electors who voted, before it can be presented for Royal Assent. Twenty-four such proposals have so far been submitted to referendums and the consent of the electors has been received in four cases, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928—and the fourth in respect of Social Services in 1946. Details of the various referendums and the voting thereon are given in Year Book No. 52, pages 66–7.

In addition to referendums for alteration of the Constitution, other Commonwealth referendums have been held, the first occasion being in 1898, when a proposed Constitution, embodied in the Federal Constitution Bill, was submitted to the popular vote but failed to receive the statutory vote of 80,000 in New South Wales. On modification of the Bill in the following year the necessary consent was obtained. In 1916 a question was submitted in terms of section 5 of the *Military Service Referendum Act* 1916 as to whether the people of Australia were in favour of compulsory overseas military service for the term of the war. The proposal was favoured by a majority of voters in Victoria, Western Australia and Tasmania, and in the Federal Territories, which also participated in this Referendum, but the necessary majority of all voters was not obtained. Affirmative votes cast amounted to 48.39 per cent of all formal votes. Of the electors on the roll, 82.75 per cent voted. In 1917 another question was submitted. This was prescribed by Regulation 6 of the War Precautions (Military Service Referendum) Regulations 1917 and asked whether the Commonwealth should have power to call up by ballot compulsory reinforcements for the Australian Imperial Force overseas, up to 7,000 per month. Only Western Australia, Tasmania and the Federal Territories voted for the proposal, and, inclusive of those of members of the Forces and crews of transports who voted on this occasion, affirmative votes amounted to only 46.21 per cent of all formal votes. The percentage of electors who voted was 81.34.

Two Bills for alteration of the Constitution were passed during 1965, one to amend the provisions that the number of members of the House of Representatives shall be as nearly as practicable twice the number of Senators (section 24), and the other to repeal section 127—'In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.' In accordance with the provisions of section 128 of the Constitution the proposals were to have been submitted to the electors within six months after the passage of the Bills. The Government, however, decided in February 1966 to defer the holding of the referendums until after the House of Representatives election of 26 November 1966.*

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* For later developments *see* Appendix.

The Parliaments of the States and State elections

Pages 53, 62 and 68 of this chapter contain summarised information on the Parliaments of each State, the qualifications for members, the numbers of Houses and members, and salaries payable. For greater detail, including some historical material, reference should be made to Year Books No. 50, pages 69–72, No. 51, page 73, No. 52, page 68, and earlier issues.

Pursuant to the *Electoral Provinces and Districts Act* 1965, a new redivision of Victoria for electoral purposes was carried out at the end of 1965 on the following basis:

(1) The so-called 'Port Phillip Area', which consists of thirty-eight existing metropolitan and semi-metropolitan districts and six parts of other districts, was redivided into forty-four electoral districts for the Assembly, each containing approximately 25,000 electors;

(2) the remaining area of the State, i.e. 'Country Area', was divided into twenty-nine electoral districts for the Legislative Assembly, consisting of eight Provincial Centre electorates each containing approximately 22,250 electors and twenty-one other electorates of a rural nature each containing approximately 18,200 electors; and

(3) the 'Southern Area' containing the nine existing Electoral Provinces of Doutta Galla, East Yarra, Higinbotham, Melbourne, Melbourne North, Melbourne West, Monash, Southern, and South Eastern was redivided into ten new provinces for the Legislative Council; the remaining eight Country Provinces are unchanged.

In Western Australia provision has been made by the *Constitution Acts Amendment Act* (*No.* 2), *1965*, which came into operation by proclamation on 12 November 1965, for the Legislative Assembly to be increased to fifty-one members. This increase in numbers will not become effective until the next State election in 1968. The increased membership followed on the passing of the *Electoral Districts Amendment Act, 1965*, which became operative as from the same date as the Constitution Acts Amendment Act (No. 2). The Electoral Districts Amendment Act required the Commissioners to adjust the boundaries of the fifteen Electoral Provinces having regard to the proposed division of the State into fifty-one Electoral Districts. The final recommendations for the redivision and adjustment of the boundaries of the Electoral Provinces were published in the Government Gazette of Western Australia dated 21 July 1966.

State Upper House elections. The following table shows particulars of the voting at the most recent elections for the Upper Houses or Legislative Councils in the States of Victoria, South Australia, Western Australia, and Tasmania. In New South Wales members of the Legislative Council are elected at simultaneous sittings of the members of both Houses, in Queensland there has been no Legislative Council since 1922, and in Tasmania three members of the Council are elected annually (but four in each sixth year) and the Council cannot be dissolved as a whole.

STATE UPPER HOUSE ELECTIONS

State	Year of latest election	Electors enrolled—whole State			Contested electorates					
					Electors who voted			Percentage of electors who voted		
		Males	Females	Total	Males	Females	Total	Males	Females	Total
Victoria	1964	800,620	834,691	1,635,311	758,124	785,654	1,543,778	94.7	94.1	94.4
South Australia	1965	n.a.	n.a.	213,377	n.a.	n.a.	149,910	n.a.	n.a.	80.2
Western Australia	1965	202,106	206,356	408,462	n.a.	n.a.	361,752	n.a.	n.a.	92.1
Tasmania	1966	(*a*) 9,264	(*a*)10,047	(*a*)19,311	7,738	8,119	15,857	83.5	80.8	82.1

(*a*) Total electors enrolled in contested divisions including one by-election.

State Lower House elections. The following table shows particulars of the voting at the most recent election for the Lower House in each State.

STATE LOWER HOUSE ELECTIONS

State	Year of latest election	Electors enrolled—whole State			Contested electorates					
					Electors who voted			Percentage of electors who voted		
		Males	Females	Total	Males	Females	Total	Males	Females	Total
New South Wales	1965	1,098,471	1,158,097	2,256,568	1,018,902	1,064,459	2,083,361	94.4	93.5	93.9
Victoria	1964	800,620	834,691	1,635,311	758,124	785,654	1,543,778	94.7	94.1	94.4
Queensland	1966	437,240	449,422	886,662	400,519	411,806	812,325	93.4	93.1	93.3
South Australia	1965	n.a.	n.a.	562,824	n.a.	n.a.	513,064	n.a.	n.a.	94.6
Western Australia	1965	202,106	206,356	408,462	n.a.	n.a.	309,893	n.a.	n.a.	92.3
Tasmania	1964	96,111	97,307	193,418	91,747	92,824	184,571	95.5	95.4	95.4

Year Book No. 51 and earlier issues contain particulars of the voting at elections for both Upper and Lower State Houses in years prior to those shown on page 67.

Number and salary of members of the legislatures, Australian Parliaments, December 1966

AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES 31 DECEMBER 1966

Members in—	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
NUMBER OF MEMBERS								
Upper House	60	60	34	(a)	20	30	19	223
Lower House	124	94	66	78	39	50	35	486
Total	**184**	**154**	**100**	**78**	**59**	**80**	**54**	**709**
ANNUAL SALARY ($)								
Upper House	(b)7,000	(c)2,040	(d)5,600	(a)	(e)6,500	(f)6,500	(g)4,600	..
Lower House	(b)7,000	(h)6,840	(d)5,600	(i) 6,700	(e)6,500	(f)6,500	(g)4,600	..

(a) Abolished in 1922. (b) Plus expense allowances—Senators, $2,100; Members of the House of Representatives, city electorates, $2,200, country electorates, $2,600. Certain additional allowances are also provided for holders of parliamentary offices, etc. (c) In addition, members who live outside the metropolitan area also receive a living away from home allowance of $10 a day. (d) Plus allowances from $1,700 for metropolitan to $2,100 for urban, $2,300 for inner country, and $2,400 for outer country electorates. (e) Plus allowance of $1,200 where electorate is less than 50 miles from Adelaide or if a Minister, $1,600 if more than 50 miles but less than 200 miles, $1,900 if more than 200 miles. (f) Plus expense reimbursement ranging from $1,400 for a metropolitan member to $2,800 for a north province member. (g) Plus allowance according to area of electorate and distance from the capital varying from $600 to $1,100 in the case of the Legislative Council, and from $1,100 to $1,850 in the case of the House of Assembly. (h) Plus allowance varying from $1,620 to $2,400 according to location of electorate. (i) Plus individual electoral allowances ranging from $1,100 to $2,630.

Enactments of the Parliaments

In the Commonwealth all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States other than South Australia and Tasmania laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal assent. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is to the extent of the inconsistency invalid.

The course of Commonwealth legislation

The actual legislation by the Commonwealth Parliament during 1966 is indicated in alphabetical order in *The Acts of the Parliament of the Commonwealth of Australia passed during the year* 1966 *in the First Session of the Twenty-fifth Parliament of the Commonwealth, with Appendix, Tables and Index*. A chronological table of Acts passed from 1901 to 1966 showing how they are affected by subsequent legislation or lapse of time is also given, and, further, a table of Commonwealth legislation passed from 1901 to 1966 in relation to the several provisions of the Constitution is furnished in the same volume. Reference should be made to these for complete information.

The Acts passed by the Commonwealth Parliament during the year 1966 are listed hereunder. In many cases the title of the Act indicates the general scope of the Act, but brief explanatory notes have been added where necessary. Appropriate chapters of this Year Book should be referred to for further information which may be available there.

The total enactments of the Commonwealth Parliament for a number of years at fairly even intervals since 1901 show a general increase. Seventeen Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939, 109 in 1952, and 93 in 1966.

Commonwealth legislation passed during 1966

Agricultural Tractors Bounty Act 1966 (No. 82) provided for the payment of a bounty on the production of agricultural tractors during the period from 26 October 1966 to 30 June 1971.

Air Navigation (Charges)Act 1966 (No. 48) increased air navigation charges by ten per cent.

Aliens Act 1966 (No. 9) gave full legal status to collection of particulars of aliens in their own country when visas are applied for and varied need for registration of aliens staying in Australia for less than one year.

Appropriation Act (No. 3) 1965–66 (No. 18); *Appropriation Act (No.* 4) 1965–66 (No. 19); *Appropriation Act (No.* 1) 1966–67 (No. 45); *Approriation Act (No.* 2) 1966–67 (No. 46).

Asian Development Bank Act 1966 (No. 25) gave parliamentary authority for the payment of a subscription of $US 85 million by Australia to join the Asian Development Bank.

Australian Capital Territory Representation Act 1966 (No. 3) provided for the repeal of the section of the *Australian Capital Territory Representation Act* 1948–1959 which limited the voting power of the member representing the Australian Capital Territory in the House of Representatives.

Australian Capital Territory Supreme Court Act 1966 (No. 8) laid down rules governing the right of barristers and solicitors to practise in the Supreme Court of the Australian Capital Territory.

Australian Coastal Shipping Commission Act 1966 (No. 4) gave the Commission greater borrowing powers and gave it the same freedom to vary the ratio between loan borrowings and equity capital as is available to private shipowners.

Bankruptcy Act 1966 (No. 33) amended the law relating to Bankruptcy in a number of important respects, completing the first full-scale review of the law of bankruptcy since the original Federal Bankruptcy Act was passed in 1924. The principal changes were: the amount of indebtedness necessary to found a bankruptcy petition by a creditor has been increased to $500; the existing provisions relating to arrangements between debtor and creditors outside bankruptcy have been repealed and new procedures set up under which a meeting of creditors shall be called and all creditors afforded an opportunity of taking part and of determining whether the debtor's affairs are to be administered outside of strict bankruptcy, and, if so, whether by deed of assignment, deed of arrangement, or composition; the obtaining of credit by an undischarged bankrupt is now an offence where the amount is $200 or over; the penalty for all offences against the Act has been increased to a maximum of imprisonment for three years; a system of discharge by operation of law, subject to the necessary safeguards in the interests of creditors and the community, has been introduced; priority in interest of the Crown in respect of outstanding income tax has been limited to tax assessed before the date of bankruptcy; creditors are discouraged from bringing about a sale of a debtor's assets by the process of execution, which would tend to diminish the value of the estate available to the trustee in bankruptcy; and some adjustments have been made between the competing interests of private creditors.

Broadcasting and Television Act 1966 (No. 57) amended the *Broadcasting and Television Act,* 1942–1965 to provide for the issue of concessional broadcast listeners' and television viewers' licences to persons in receipt of a tuberculosis allowance who would otherwise have been eligible for a pension under the Social Services Act.

Canned Fruits Export Charges Act 1966 (No. 73) allowed for one payment being made instead of a series as provided under the principal Act and simplified the expression of the maximum rate of charge.

Cellulose Acetate Flake Bounty Act 1966 (No. 80) extended the operation of the *Cellulose Acetate Flake Bounty Act* 1956–1965 until 31 December 1969.

Commonwealth Banks Act 1966 (No. 58) amended the *Commonwealth Banks Act* 1959–1965 to provide that membership of the Papua and New Guinea Development Bank Board will not disqualify a person from being a member of the Commonwealth Banking Corporation Board.

Commonwealth Electoral Act 1966 (No. 32) made provision for the franchise to be extended to persons under the age of 21 years who are or have been on special service outside Australia as members of the defence forces (*see* page 61).

Commonwealth legislation passed during 1966—continued

Conciliation and Arbitration Act 1966 (No. 64) increased the number of Judges of the Commonwealth Industrial Court to seven.

Customs Act 1966 (No. 28); *Customs Tariff Act* (*No.* 2) 1966 (No. 27); *Customs Tariff Act* (*No.* 3) 1966 (No. 34); *Customs Tariff Validation Act* 1966 (No. 1); *Customs Tariff Validation Act* (*No.* 2) 1966 (No. 88).

Defence Forces Retirement Benefits Act 1966 (No. 70).*

Defence (*Parliamentary Candidates*) *Act* 1966 (No. 87) provided for the discharge of National Servicemen wishing to stand as candidates at Federal parliamentary elections.

Dried Vine Fruits Stabilization Act 1966 (No. 74) provided for a new method based on sample techniques for the ascertainment of average return as prescribed in the Act and for a new procedure of payment of bounty and refunds of contributory charge to growers.

Estate Duty Assessment Act 1966 (No. 53), exempted gifts to the National Trusts of Queensland, Western Australia and Tasmania from estate duty.

Extradition (*Commonwealth Countries*) *Act* 1966 (No. 75) *Extradition* (*Foreign States*) *Act* 1966 (No. 76). These Acts provided restrictions on the surrender of political fugitives, provided that trial could take place on any charge proved by the facts on which the extradition was granted, and provided that the offence for which extradition is sought must be an offence not only in the country seeking extradition, but also in the country in which the fugitive is apprehended. The Acts also laid down the procedure to be followed for the extradition of fugitives.

Financial Agreement Act 1966 (No. 30) ratified an Agreement between the Commonwealth and the States amending the Financial Agreement to permit it to operate in decimal currency.

High Commissioner (*United Kingdom*) *Act* 1966 (No. 56) gave the High Commissioner in London authority to delegate powers in relation to the appointment of staff and the engagement of employees, to validate such appointments and engagements made otherwise than by the High Commissioner, and to validate certain salary increases paid by way of ministerial approval to locally engaged staff.

Housing Agreement Act 1966 (No. 24) provided for the making of a new five-year agreement with the States in respect of housing advances when the existing agreement expired on 30 June 1966.

Income Tax Act 1966 (No. 51); *Income Tax Assessment Act* 1966 (No. 50); *Income Tax Assessment Act* (*No.* 2) 1966 (No. 83); *Income Tax* (*International Agreements*) *Act* 1966 (No. 17); *Income Tax* (*Partnerships and Trusts*) *Act* 1966 (No. 52).

International Finance Corporation Act 1966 (No. 36) amended the *International Finance Corporation Act* 1955–1963 to take account of recent amendments to the articles of Association of the International Finance Corporation enabling it to supplement its existing resources by borrowing from the International Bank for Reconstruction and Development.

International Monetary Agreements Act 1966 (No. 37) provided for the Schedules to the *International Monetary Agreements Act* 1947–1963 to be brought into line with the amended Articles of Agreement for the International Bank for Reconstruction and Development.

International Wheat Agreement (*Extension*) *Act* 1966 (No. 16) approved the signature and acceptance by Australia of the Protocol extending the International Wheat Agreement 1962 for a further year.

Judiciary Act 1966 (No. 55) laid down who may practise as barristers or solicitors in the High Court and other Federal courts and in courts of the Territories and dealt with subsidiary matters such as discipline of persons so practising.

Loan Act 1966 (No. 13) authorised the raising and expending of a sum not exceeding $150 million for defence purposes.

Loan Act (*No.* 2) 1966 (No. 49) authorised the raising and expending of a sum not exceeding $300 million for defence purposes.

Loan (*Housing*) *Act* 1966 (No. 6) authorised the raising and expending of a sum not exceeding $15 million for housing purposes.

Loan (*Housing*) *Act* 1966 (No. 2) 1966 (No. 35) authorised the raising and expending of a sum not exceeding $120 million for housing purposes.

Loan (*Airlines Equipment*) *Act* 1966 (No. 2) approved the raising in the United States of $US 54 million to be lent to the Australian National Airlines Commission and Qantas Empire Airways Limited for the purchase of jet aircraft.

Loan (*Defence*) *Act* 1966 (No. 22) authorised the borrowing in the United States of $US 450 million for defence purposes.

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* Provided for a new basis of pensions for orphan children by relating these pensions to the fathers' former salary and pension entitlements.

Commonwealth legislation passed during 1966—continued

Maintenance Orders (Commonwealth Officers) Act 1966 (No. 59) provided for the enforcement of maintenance orders against Commonwealth employees by attachment of earnings orders directed to the Commonwealth and authorities of the Commonwealth.

Matrimonial Causes Act 1966 (No. 60) amended the Third Schedule of the Act, which deals with attachment of earnings as a means of enforcement of maintenance orders, so as to make all attachments of earnings legislation fairly uniform.

Migration Act 1966 (No. 10) provided that seamen's discharge books may be accepted as identification cards for ships crews, and revised sections of the Act relating to penalties consequent on the introduction of decimal currency.

Nationality and Citizenship Act 1966 (No. 11) provided that where one partner to a marriage becomes eligible for naturalisation the other party may be granted naturalisation and they may also be naturalised together, and that the words by which applicants renounce allegiance to their former countries shall be incorporated as part of the oath of allegiance to the Queen.

National Debt Sinking Fund Act 1966 (No. 65) provided for debt redemption by contributions of four per cent in respect of appropriate outstanding and newly created Commonwealth Debt from the new base date 30 June 1966.

National Health Act 1966 (No. 44) altered the definition of a pensioner in the National Health Act to permit the enrolment in the pensioner medical service of persons becoming entitled to pensions under the new provisions of the Social Services Act and the Repatriation Act (*see below*, and p. 72). It also provided for an increase in the rate of hospital benefit payable to public hospitals for the free treatment of public ward pensioners, and for an increase in the special rate of hospital benefit paid to patients with long-term or chronic illnesses.

Nitrogenous Fertilizers Subsidy Act 1966 (No. 78) provided for payment of a subsidy of $80 per ton of nitrogenous fertilisers used in Australia payable, *pro rata* on the nitrogen content of the particular material, from 17 August 1966 until 31 October 1969.

Papua-New Guinea Act 1966 (No. 84) amended the Papua and New Guinea Act to make changes in the composition of the House of Assembly and in the Territory Judicial system. The number of members of the House of Assembly was increased to ninety-four, sixty-nine ordinary seats and fifteen regional seats open to candidates with a minimum educational qualification. To provide for an appeal within the Territory from a decision of the Supreme Court the Act constituted a Full Court of the Supreme Court to hear and determine appeals from, or cases stated by, single judges of that Court.

Parliamentary Retiring Allowances Act 1966 (No. 71).*

Payroll Tax Assessment Act 1966 (No. 54).

Phosphate Fertilizers Bounty Act 1966 (No. 40) extended the operation of the Act from 14 August 1966 to 31 October 1969.

Post and Telegraph Act 1966 (No. 7) provided for the issue of postal orders in lieu of postal notes and for the fixing of upper limits to the value of postal orders and money orders issued by regulation instead of by the Act as was formerly the case.

Poultry Industry Assistant Act 1966 (No. 66) provided that money in the Poultry Industry Trust Fund might be expended on research with a $1 for $1 contribution by the Commonwealth.

Poultry Industry Levy Act 1966 (No. 68); *Poultry Industry Levy Collection Act* 1966 (No. 67).

Public Service Act 1966 (No. 47) amended the *Public Service Act* 1922–1964 to make special provision to insure that staff employed under the Act are appropriately covered and protected during absences on compulsory defence service, to provide for payment in lieu of furlough in certain circumstances to officers ceasing duty after ten years but less than fifteen years continuous service and for other additional furlough entitlements, and to include other amendments mainly of a machinery nature.

Public Service Act (No. 2) 1966 (No. 85) provided for the employment of married women as permanent officers of the Commonwealth Public Service.

Quarantine Act 1966 (No. 12) provided that new arrivals in Australia who cannot satisfy the quarantine officer that they are not suffering from active pulmonary tuberculosis may be required to undergo medical examination.

Queensland Beef Cattle Roads Agreement Act 1966 (No. 38) increased the limit of financial assistance available for beef roads in Queensland from $16.6 million to $20.5 million.

Repatriation Act 1966 (No. 42) provided for increases of $2 per week in the special rate of pension—totally and permanently incapacitated—and in the amounts paid to certain amputees, and of $1 per week in the rate of pension for war widows.

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* Provided for a new basis of pensions for orphan children by relating these pensions to the father's former salary and pension entitlement.

Commonwealth legislation passed during 1966—continued

Sales Tax (Exemptions and Classifications) Act 1966 (No. 26); *Sales Tax (Exemptions and Classifications) Act (No.* 2) 1966 (No. 62).

Seamen's War Pensions and Allowances Act 1966 (No. 43) provided for an increase of $2 per fortnight in the rate of pension payable to widows and intermediate rate pensioners under the Act and an increase of $4 per fortnight in the total and permanent incapacity rate.

Senate Elections Act 1966 (No. 63) provided that where there are two or more casual Senate vacancies to be filled at a general election of members of the House of Representatives, the election to fill those vacancies shall be conducted as one election.

Social Services Act 1966 (No. 41) increased the standard rate of pensions payable under the Act by $1 a week.

States Grants (Advanced Education) Act 1966 (No. 89) appropriated $24 million for capital expenditure and $11.18 million for recurrent expenditure in colleges of advanced education.

States Grants (Drought Assistance) Act 1966 (No. 31) authorised the payment of up to $26 million to the States of New South Wales and Queensland for the alleviation of the effects of drought.

States Grants (Drought Assistance) Act (No. 2) 1966 (No. 61) authorised the payment of an amount of $10.75 million to the States of New South Wales and Queensland to assist them in meeting the adverse effects of drought on their revenues.

States Grants (Research) Act 1966 (No. 92) amended the requirement for States to match Commonwealth contributions so that the Minister may require an equal matching amount or a lesser amount or no contribution at all from the State towards special research projects in a State university.

States Grants (Special Assistance) Act 1966 (No. 72) authorised the payment of special grants totalling $40,072,000 to the States of Western Australia and Tasmania.

Statute Law Revision (Decimal Currency) Act 1966 (No. 93) provided for textual revisions consequent on the *Currency Act* 1965, to be incorporated in Acts when they are reprinted.

Stevedoring Industry Act 1966 (No. 77) provided for increased entitlement to long service for waterside workers with over fifteen years service.

Sulphate of Ammonia Bounty Act 1966 (No. 5).

Sulphate of Ammonia Bounty Act (No. 2) 1966 (No. 79) provided for continuation of the payment of bounty on sulphate of ammonia until 31 December 1969 and raised the maximum payment limit to $1 million as from 26 October 1966.

Superannuation Act 1966 (No. 69).

Superannuation Act (No. 2) 1966 (No. 86) enabled married women to contribute to the Commonwealth Superannuation Fund.

Supply Act (No. 1) 1966–67 (No. 20); *Supply Act (No.* 2) 1966–67 (No. 21).

Tractor Bounty Act 1966 (No. 15) extended the operation of the Act to 31 December 1966 or such earlier date as proclaimed.

Trade Practices Act 1966 (No. 39) amended the *Trade Practices Act* 1965 for the purpose of controlling the operations of Shipping Conferences in relation to the carriage of goods by sea from Australia to other countries.

Therapeutic Goods Act 1966 (No. 29) repealed the Therapeutic Substances Act and provided for the determination of specific standards for individual products, general standards for all therapeutic goods or certain classes of goods, methods of testing for compliance with standards, and requirements with respect to labelling, packaging and containers and empowered the Minister to prohibit the importation into Australia of dangerous substances.

Universities (Financial Assistance) Act 1966 (No. 90) authorised grants totalling approximately $175 million for the Commonwealth share of the agreed programme of development of State universities for the years 1967 to 1969.

Universities (Financial Assistance) Act (No. 2) 1966 (No. 91) amended the Universities (Financial Assistance) Act to clarify the definition of capital expenditure and to make formal record of the changed title of the Flinders University of South Australia.

Urea Bounty Act 1966 (No. 81) provided for the payment of a bounty on urea produced and sold in Australia as a fertiliser during the period 26 October 1966 to 31 December 1969.

Vinyl Resin Bounty Act 1966 (No. 14) extended by a maximum period of six months the operation of the *Vinyl Resin Bounty Act* 1963.

Western Australia Grant (Beef Cattle Roads) Act 1966 (No. 23) extended the operation of the *Western Australia Grant (Beef Cattle Roads) Act* 1962 to 30 June 1967 and provided for the payment of a grant in respect of 1966–67 of not more than $1.5 million.

Cost of parliamentary government

The table below shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; *they do not attempt to cover the expenditure on Commonwealth and State administration generally.* Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. A very large part of the expenditure under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, carried out at the request of the Government. The item includes salaries of Government House staffs and maintenance of residences, official establishments, grounds, etc., and expenditure on capital works and services.

COST OF PARLIAMENTARY GOVERNMENT, 1965-66
($'000)

Expenditure group	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Governor-General or Governor(*a*)	(*b*) 444	144	208	(*b*) 115	115	119	127	1,273
Ministry(*c*)	625	178	114	92	35	166	88	1,299
Parliament—								
Upper House(*d*)	705	146	284	. .	138	283	113	1,669
Lower House(*d*)	1,345	677	524	659	273	375	230	4,082
Both Houses(*e*)	2,344	835	594	304	425	366	112	4,979
Miscellaneous(*f*)	1,239	216	103	52	87	63	43	1,805
Total, Parliament	*5,633*	*1,875*	*1,505*	*1,015*	*922*	*1,087*	*498*	*12,537*
Electoral(*g*)	2,164	205	112	311	170	75	57	3,095
Royal Commissions, Select Committees, etc.	31	8	45	13	43	3	8	151
Grand total	**8,897**	**2,410**	**1,985**	**1,546**	**1,288**	**1,451**	**779**	**18,357**

(*a*) Salaries and other expenses, including maintenance of house and grounds. (*b*) Includes official establishments, Commonwealth $69,000 and Queensland $1,000. (*c*) Salaries as ministers, and travelling and other expenses. (*d*) Allowances to members (including ministers' salaries as members), travelling and other expenses. (*e*) Government contribution to members' superannuation funds, printing, reporting staff, library, etc. (*f*) Services, furniture, stores, etc. (*g*) Salaries, cost of elections, etc.

COST OF PARLIAMENTARY GOVERNMENT, 1961-62 TO 1965-66

Year	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
				TOTAL ($'000)				
1961–62	7,417	2,429	1,740	1,152	941	1,260	578	15,518
1962–63	7,031	2,019	1,648	1,259	926	1,240	619	14,742
1963–64	8,015	2,112	1,837	1,292	1,019	1,308	670	16,252
1964–65	8,939	2,426	1,995	1,299	1,177	1,498	740	18,074
1965–66	8,897	2,410	1,985	1,546	1,288	1,451	779	18,357
				PER HEAD OF POPULATION ($)				
1961–62	0.70	0.61	0.59	0.75	0.96	1.69	1.64	1.46
1962–63	0.65	0.50	0.55	0.81	0.93	1.62	1.73	1.36
1963–64	0.73	0.52	0.60	0.82	1.00	1.66	1.85	1.48
1964–65	0.80	0.59	0.64	0.80	1.12	1.86	2.02	1.61
1965–66	0.78	0.57	0.62	0.94	1.19	1.76	2.11	1.60

Commonwealth Government Departments

In Year Book No. 49 (pages 87–98) a list appears of the Commonwealth Government Departments, giving particulars for each Department of the principal matters dealt with and the Acts administered by the Minister concerned as at the end of 1962, and changes made during 1963 are shown on page 83 of Year Book No. 50. For a list of current Acts administered *see* the *Commonwealth Directory* and pages 1357–66 of *Commonwealth of Australia Gazette* No. 22 of 1967.

On 13 December 1966, the establishment of the Department of Education and Science was notified in *Commonwealth of Australia Gazette* No. 103A of 1966. This Department took over from the Prime Minister's Department the administration of the following Acts:

Australian Institute of Aboriginal Studies Act 1964–1966
Australian National University Act 1946–1966
Australian Universities Commission Act 1959–1965
Education Act 1945–1966
Re-establishment and Employment Act 1945–1966: Part III. in relation to university and university-type training; and Part XII. to the extent to which it applied or may be applied in relation to the foregoing
Science and Industry Endowment Act 1926–1949
Science and Industry Research Act 1949–1966
States Grants (Advanced Education) Acts
States Grants (Research) Act 1965–1966
States Grants (Science Laboratories and Technical Training) Act 1964
States Grants (Science Laboratories) Act 1965–1966
States Grants (Technical Training) Act 1965–1966
States Grants (Universities) Acts
Universities (Financial Assistance) Acts
Weights and Measures (National Standards) Act 1960–1966

The Prime Minister's Department now administers the following Acts:

Commonwealth Grants Commission Act 1933–1966
Commonwealth Salaries Act 1907
Flags Act 1953–1954
High Commissioner (United Kingdom) Act 1909–1966
Ministers of State Act 1952–1967
National Library Act 1960–1966
Officers' Rights Declaration Act 1928–1959
Parliamentary Allowances Act 1952–1966
Parliamentary Presiding Officers Act 1965
Public Accounts Committee Act 1951–1966
Public Service Act 1922–1967
Public Works Committee Act 1913–1966
Royal Commissions Act 1902–1966
Royal Powers Act 1953
Royal Style and Titles Act 1953
Special Annuity Acts

CHAPTER 4

DEFENCE

Department of Defence

Functions of Department of Defence

The functions of the Department of Defence include: defence policy; joint Service matters and matters having an inter-departmental defence aspect; the financial requirements of defence policy and the allocation of the funds made available; the supply aspect of defence policy including the review of production programmes and capacity; important matters of policy or principle affecting the Defence Forces and their requirements, including the strength, organisation and disposition of the forces, higher appointments in the Services, their weapons and equipment, and defence research and development.

Organisation, higher defence machinery and the control of the joint Service machinery

The joint Service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee, the Chiefs of Staff Committee, the Defence Administration Committee, and the Joint War Production Committee.

The *Defence Committee* is a statutory body consisting of the Secretary, Department of Defence, who is Chairman; the Chairman of the Chiefs of Staff Committee; the Chiefs of Staff of the three Services; the Secretary, Prime Minister's Department; the Secretary, Department of External Affairs; and the Secretary to the Treasury. Its function is to advise the Minister for Defence on: the defence policy as a whole and the co-ordination of military, strategic, economic, financial, and external affairs aspects of defence policy; matters of policy or principle and important questions having a joint Service or an inter-departmental defence aspect; and such other matters having a defence aspect as are referred to the Committee by or on behalf of the Minister for Defence.

The *Chiefs of Staff Committee* meets regularly for the discussion of technical military matters on a joint service basis, and is responsible in peace for the preparation of military appreciations and plans. The functions of the *Defence Administration Committee* are the regular review of the progress of the Defence Programme, the co-ordination or integration of Service activities where appropriate in the interests of improved efficiency and economy, and the improvement of methods and organisation. The function of the *Joint War Production Committee* is, briefly, to examine the Services' requirements for war *matériel* and to recommend whether industrial capacity is adequate to meet them. The major committees subordinate to the Defence Committee and/or the Chiefs of Staff Committee are the Principal Administrative Officers Committee (Maintenance and *Matériel*), the Principal Administrative Officers Committee (Personnel), the Defence Research and Development Policy Committee, the Joint Planning Committee, the Joint Intelligence Committee, and the Joint Administrative Planning Committee.

In addition, the *Defence Business Board* furnishes advice on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Programme. The Board comprises businessmen who serve in a part-time honorary capacity and consists of an independent chairman and deputy chairman and the business advisers of the three Service Departments.

Basis of current defence policy

The primary aim of Australia's defence policy is to ensure the security of the Australian mainland and island Territories and to protect Australian national interests. Serious communist aggression and subversion continues to occur in south-east Asia, which is Australia's area of primary strategic interest. In these circumstances greater assurance of the preservation of our own security is gained from Australia's participation with allies in SEATO, ANZUS and British Commonwealth defence arrangements. This assurance is strengthened by the demonstration of Australian support for allied policies in areas of national interest and of our willingness and capability to take effective military action in defence of south-east Asia commensurate with our national interests and resources as well as our own defence. Australian forces must have adequate capacity, mobility and flexibility for a fast and effective response to meet a wide range of situations.

The defence programme

The defence programme must be maintained at a level that will enable Australia to meet its regional and home defence responsibilities. These aims are pursued through a series of defence programmes which are designed to give progressive effect to the objectives of policy approved by the Government and are capable of adjustment in the light of strategic developments and changes in the international situation. To achieve this, emphasis is placed on progressively increasing our military capability and preparedness through the availability of highly trained regular forces, backed by appropriate reserve and citizen forces. The forces are being extensively re-equipped with modern conventional weapons, standard or compatible, as far as possible, with those used by United States forces, with whom Australia is associated in defence arrangements.

Navy. The naval programme provides for the continuing modernisation and development of the Royal Australian Navy into a well-balanced fleet with emphasis on anti-submarine capabilities. Details of ships in commission and in reserve and of the current ship-building programme are shown on pages 80–1. In addition a wide range of naval projects is being provided. These include support facilities for the Charles F. Adams destroyers, a missile firing range, development of a submarine base and of construction and support facilities, replacement of harbour support craft and fleet boats, modernisation of Wessex helicopters, development of Manus Island base, and provision of training equipments. The Navy personnel requirement by June 1967 is 16,130. The Navy Emergency Reserve has been raised with a planned strength of 2,000 and enlistment is proceeding.

Army. The strength of the Regular Army is to be increased to 41,000 by 30 June 1967. This strength will be achieved by voluntary recruiting supplemented by national servicemen called up under the selective national service scheme. Under this scheme all young men are required to register for service in their twentieth year. Selection is by ballot based on birthdays and each year 8,400 are called up to render two years full-time service in the Army, followed by three years service in the Reserve. As an alternative to national service, enlistment for, and completion of, six years part-time service in the Citizen Military Forces is acceptable. Members of the C.M.F. who have served for more than twelve months at the time of registration for national service, and who are balloted in for service, are granted deferment on application, subject to the completion of a total of five years satisfactory service in the C.M.F. Aliens who have resided in Australia for more than two years and who intend to reside permanently in Australia are liable to render service under the national service scheme, although if balloted in and selected, they will not be called up until they have turned twenty-one years of age. National servicemen are liable for service overseas. A volunteer Regular Army Emergency Reserve with a target strength of about 4,000 ex-regulars is being formed and can be called out when the Governor-General considers it desirable to do so.

The reorganisation of the field force on a new tropical warfare organisation has proceeded. Eight regular battalions of the Royal Australian Regiment have now been raised and other elements of the field force have been reorganised and raised within the planned limits of available manpower. The new organisation provides a substantial increase in the combat element and high priority logistic units and has been adapted to provide more infantry battalions in a division. This gives greater flexibility to meet requirements for cold and limited war situations. The new divisional reorganisation will also further improve the Army's air ability and ensure maximum value for the increased availability of air transport support.

The Australian Support Area, which provides the command, administrative, training and maintenance organisation for the Army as a whole, has also been expanded to absorb the effects of the introduction of national service, the general expansion of the Army and the deployment of additional forces overseas.

The approved ceiling strength of the Citizen Military Forces is 35,000 by 30 June 1967. Substantial changes have been made in the C.M.F. organisation to create additional battalions (of which twenty are now raised) and the reorganisation of additional C.M.F. elements is in hand. Special arrangements are also being made to provide an opportunity for service by persons whose place of residence or type of occupation precludes them from undertaking normal C.M.F. service. The Pacific Islands Regiment is being increased to three battalions with a total strength of some 3,600 by June 1968.

About $150 million will be spent from 1965 to 1968 in buying additional equipment similar to that already in service or on order throughout the whole range of modern conventional weapons, ammunition, vehicles, light aircraft, engineering and signal stores, etc., and new equipment which the Army is investigating such as low level anti-aircraft weapons, air portable armoured fighting vehicles, new artillery weapons, combat surveillance equipment, and various other items.

In addition to the large works programme for the Pacific Islands Regiment in Papua and New Guinea costing about $37 million a greatly increased Army works programme is being undertaken in Australia to provide the accommodation, training and support requirements for the increase in Army strength to 41,000.

Air Force. The operational units of the Royal Australian Air Force comprise three bomber squadrons, five fighter squadrons, two maritime reconnaissance squadrons, four transport squadrons, one surface-to-air missile squadron, two utility helicopter squadrons, and two control and reporting radar units. The fighter squadrons are being re-equipped with the supersonic Mirage 111-O jet fighter, of which 100 have been ordered. Deliveries from combined Australian-French production have been coming forward since early 1964 at the scheduled rate. Twenty-four F111C strike reconnaissance aircraft have been ordered from the United States of America to replace the Canberra bombers, and deliveries are scheduled to commence in 1968. Twenty-five Caribou short take-off and landing transport aircraft have been delivered. Twelve C130E Hercules aircraft have been ordered from the United States for an additional medium range transport squadron and six had been delivered by the end of November 1966. Ten Orion P3B aircraft have been ordered to replace the squadron of P2E Neptune maritime reconnaissance aircraft. Seventy-five Macchi all-through jet trainers have been ordered. The initial batch of the aircraft are to be imported from Italy and the balance assembled in Australia. A further order for thirty-three aircraft is to be placed in later years. Ten dual Mirage training aircraft have been ordered, and eight HS748 aircraft are being obtained from the United Kingdom for navigational and radio training purposes. Seven new V.I.P. aircraft have been ordered, comprising two HS748 and two BAC 111 aircraft from the United Kingdom and three Mystere 20 aircraft from France. Contracts have been arranged for the supply of two new control and reporting units from the United Kingdom. The modernisation of a third unit is in the planning stages. The network of modern operational airfields is being further improved, including major works for the F111C at Amberley, and a second airfield in the Northern Territory at Tindal is nearing completion, while a satellite aerodrome and other facilities at Pearce, Western Australia, are being provided for operation of the Macchi aircraft. The old wartime airfield at Nadzab in Papua-New Guinea has been rehabilitated and the airfield at Daru and other smaller airstrips located between Daru and Boram have been up-graded or constructed. The airfield at Cocos Island has been improved. In addition, considerable modern accommodation for personnel is being built at a number of bases. The number of personnel required for the operation of the R.A.A.F. by June 1967 is 20,150. In addition, the Air Force Emergency Force with a planned strength of 1,300 has been raised, and enlistment is proceeding.

Research and development. In this field Australia is making its principal contribution through the Long Range Weapons Project which is a joint effort with the United Kingdom. Australia also participates in the European Launcher Development Organization and is associated with the United States in many space and defence projects. The Australian executive authority in these matters is the Department of Supply.

Defence expenditure

Details of defence expenditure for 1965–66 and the allocation of the defence vote for 1966–67 are set out in the following table.

DEFENCE EXPENDITURE, 1965-66 AND DEFENCE VOTE, 1966-67

($'000)

Service or department	Maintenance, aid programmes, etc.	Capital material requirements, machinery, plant and equipment	Capital buildings, works and acquisition of sites	Total expenditure
DEFENCE EXPENDITURE, 1965–66				
Defence	6,921	1,890	197	9,008
Navy	102,775	59,843	8,004	170,622
Army	181,346	37,526	42,880	261,752
Air	132,069	70,422	15,618	218,109
Supply	57,818	8,276	5,270	71,364
Other	16,575	318	108	17,001
Total	**497,504**	**178,275**	**72,077**	**747,856**

DEFENCE EXPENDITURE, 1965–66 AND DEFENCE VOTE, 1966–67—*continued*

($'000)

Service or department	Maintenance, aid programmes, etc.	Capital material requirements, machinery, plant and equipment	Capital buildings, works and acquisition of sites	Total expenditure
DEFENCE VOTE, 1966–67				
Defence	8,539	929	135	9,603
Navy	110,541	74,669	8,463	193,673
Army	225,976	39,159	63,363	328,498
Air	148,658	90,218	14,863	253,739
Supply	62,822	9,449	5,781	78,052
Other	22,245	329	83	22,657
Total	**578,781**	**214,753**	**92,688**	**886,222**

Logistic arrangement with United States Government

A logistic arrangement has been agreed with the United States Government in respect of Australian equipment purchases during the programme period up to 30 June 1968. This arrangement is in effect a 'package deal' covering all the items required instead of negotiating each separate purchase as it arises, and by this method Australia has obtained more advantageous financial terms together with assurances of better delivery dates to meet our requirements. Under this arrangement, instead of paying for the equipment roughly in line with deliveries, the Government is enabled to spread payments over an extended period. Deferment of payments to later years will cause a reduction in the currently approved programme of defence expenditure in 1966–67.

Personnel strengths

The personnel strengths of the Services at 30 November 1966 are shown in the following table.

PERSONNEL STRENGTHS: SERVICES, 30 NOVEMBER 1966

Category	Navy	Army	Air Force	Total
Permanent Forces	15,325	(*a*) 36,806	19,516	71,647
Emergency Reserves	722	763	212	1,697
Citizen Forces	3,797	32,926	1,025	37,748
Total Forces	**19,844**	**70,495**	**20,753**	**111,092**

(*a*) Excludes 1,821 Pacific Islanders.

Changes in defence legislation

Under amendments made to defence legislation in 1964* the Citizen and Reserve Forces may be called out by proclamation for continuous full-time service in a 'Time of Defence Emergency'. The particular circumstances giving rise to the proclamation of a time of defence emergency could be varied, but would occur in a situation where the Regular Forces needed the full-time support of the Citizen and Reserve Forces in hostilities short of general war.

The legislation also provided for the establishment of volunteer Emergency Reserves for the three Services. These Reserves provide a ready means of supplementing and reinforcing operational units and may be called out for continuous full-time service when the Governor-General considers it desirable to do so.

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[*] *Air Force Act* 1964, *Defence Act* 1964, *National Service Act* 1964, and *Naval Defence Act* 1964

Provision was made in new defence legislation enacted in 1965 for the inclusion in the Permanent Military Forces of national servicemen who are obliged under the National Service Act as amended in 1964 and 1965 to render two years continuous full-time service in the Regular Army Supplement and three years part-time service in the Regular Army Reserve. The amendment also provided for extension of the liability to render continuous full-time service in time of defence emergency and in time of war. National Servicemen in common with all members of the Defence Force may be required to serve either within or beyond the territorial limits of Australia.

The amending legislation repealed the former provisions of the Defence Act under which persons called up for compulsory service in the Citizen Military Forces in time of war were not required to serve beyond the territorial limits of Australia unless they volunteered to do so. Liability for overseas service became mandatory for all persons called up for service in the Defence Force in time of war. The war-time powers of call-up for compulsory service were extended to apply to service in the Navy and Air Force as well as in the Army. New provisions dealing with registration, allotment and exemption from compulsory service in time of war were also enacted.

Australian forces serving overseas

Australia has participated with the United Kingdom and New Zealand in the Commonwealth Strategic Reserve since it was first established in Malaya in 1955, and has continued to station forces in the Reserve following the formation of Malaysia and the independence of Singapore. During the period of Indonesian confrontation, Australian ships, aircraft and ground forces additional to the normal Strategic Reserve forces were deployed to assist in the defence of Malaysia's territorial and political independence. Of the Australian forces serving with the Reserve during this period, two Australian battalions, two Special Air Services squadrons, engineer squadrons, and a number of R.A.N. ships participated in Borneo operations; R.A.A.F. Sabre aircraft were also deployed there for a brief period. As a result of the cessation of confrontation several changes to Australian forces serving with the Strategic Reserve were announced during 1966. Of the elements which had been temporarily attached to the Reserve, four R.A.A.F. Iroquois helicopters were withdrawn in May, two R.A.N. minesweepers were withdrawn in November, and an Army engineer squadron was withdrawn in December. It was announced in December 1966 that a squadron of R.A.A.F. Canberra aircraft was to be withdrawn from the normal Australian contribution and deployed to Vietnam, and that in mid-1967 a squadron of Sabre fighter aircraft would be replaced by a squadron of the new R.A.A.F. Mirage aircraft. The strength of the Australian component serving with the Strategic Reserve will be as follows:

Navy—two destroyers or frigates, two minesweepers, with an annual visit by an aircraft carrier;

Army—one infantry battalion group, one L.A.A. battery;

Air Force—two fighter squadrons and supporting units.

In pursuance of our obligations under the SEATO Treaty, at the invitation of the Government of Thailand, a squadron of R.A.A.F. Sabre fighter aircraft is deployed in Thailand as an integral part of the air defence system of that country.

In response to an invitation of the Government of South Vietnam a team of Australian Army advisers has been provided since 1962 to assist in training Vietnamese in jungle warfare, village defence and related activities. A detachment of six Caribou transport aircraft, together with the R.A.A.F. personnel required to fly and maintain them, was provided in 1964. In April 1965 the Australian Government also agreed to a request from the South Vietnamese Government to deploy an Australian battalion and supporting elements for combat service. A further 350 support troops were contributed in August 1965 to bring the Army combat force up to a battalion group.

In March 1966 the Government announced its decision to treble the Australian contribution with the establishment of the Australian Force Vietnam of some 4,500 men. The force contains, in addition to its headquarters, two infantry battalions, a special air services squadron, substantial combat support elements, a squadron of R.A.A.F. Caribou aircraft, and a squadron of R.A.A.F. Iroquois helicopters grouped as a Task Force; a logistic support group; and the 100-man Australian Army Training Team Vietnam. It was further announced in December 1966 that the Australian Force Vietnam would be increased in early 1967 by one third to a new level of about 6,300. The ground force units of the Task Force would be expanded by 900 men, and the new R.A.N. guided missile destroyer, H.M.A.S. *Hobart*, a R.A.N. clearance diving team, and a squadron of eight R.A.A.F. Canberra bombers would be deployed to South Vietnam.

Defence support aid

In support of Australia's strategic policy of contributing to the common defence of South-east Asia the Government provides substantial financial aid to our Asian allies in the form both of direct defence assistance to support the armed forces of these countries and to increase their defence capability and of civil aid and technical assistance.

Under this programme assistance to the extent of $2,000,000 will be provided for South Vietnam, Thailand, Pakistan, and the Philippines during 1966–67. This will include material assistance, the training of service and civilian personnel both in their home countries and in Australia and, in the case of South Vietnam, special aid in the form of the provision of surgical teams to staff surgical blocks at the Long Xuyen, Bien Hoa and Vung Tau hospitals, an engineering team to carry out a water supply project at Bien Hoa, the printing of school text books, and civic action by the Australian Force Vietnam.

Malaysia is also being further assisted to strengthen its defence capability by the extension of the $6 million aid programme commenced in 1965. The Australian Government announced the provision of some $19 million for Malaysia and Singapore up to 31 December 1967. The aid to Malaysia includes ammunition, military vehicles, weapons, small craft, engineer equipment, and general stores. Malaysian servicemen will continue to be trained in Australia and the seconding of Australian servicemen to the Malaysian armed forces will also be continued. The Australian Government is providing defence aid, totalling $1,319,000, to Singapore in response to specific requests by Singapore. The aid consists of electronic radio and electro-mechanical range AustFire targets, lightweight sleeping equipment, and a large quantity of 2½ ton four-wheel-drive trucks. Army training courses will also be provided in Australia for Singapore army personnel.

Naval defence

Prior to 1901, naval defence systems were organised under the State Governments. Information regarding these systems is given in Year Book No. 2, page 1084. An outline of the development of Australian naval policy is given in Year Books No. 3, page 1060, and No. 12, page 1012. An account appears in Year Book No. 15, pages 921–3, of the building of the Australian Navy, its costs, the compact with the Imperial Government, and other details. The growth and the activities of the Royal Australian Navy during the 1939–45 War are shown in Year Book No. 36, pages 1023–7.

Under the provisions of the Commonwealth of Australia Constitution Act the Minister of State for the Navy administers the Department of the Navy. Under the *Naval Defence Act* 1910–1966 the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister as Chairman, four Naval Members and the Secretary to the Department of the Navy.

Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers. A liaison staff is also maintained by the Royal Australian Navy in Washington, and a comprehensive exchange of information is provided by this link. Staff courses in the United States are also attended by officers of the Royal Australian Navy.

Ships of the Royal Australian Navy

In commission, March 1967: *Melbourne*—aircraft carrier; *Sydney*—fast troop transport; *Supply*—fast fleet replenishment tanker; *Vampire, Vendetta, Duchess*, and *Anzac*—destroyers; *Perth* and *Hobart*—guided missile destroyers; *Stuart, Parramatta, Derwent*, and *Yarra*—escort ships; *Queenborough*—training ship; *Diamantina*—training and oceanographic ship; *Hawk, Gull, Ibis*, and *Teal*—minesweepers; *Kimbla*—trials ship and boom defence vessel; *Moresby* and *Paluma*—survey vessels; *Oxley*—submarine.

In reserve, March 1967: *Tobruk*—destroyer; *Quickmatch* and *Quiberon*—escort ships; *Gascoyne*—oceanographic ship; *Barcoo*—hydrographic vessel; *Koala*—boom working vessel; *Sprightly*—fleet tug; *Culgoa*—accommodation ship; *Castlemaine*—training vessel; *Curlew* and *Snipe*—minesweepers; *Bass* and *Banks*—general purpose vessels.

On service overseas. During the year ended March 1967 the following ships served in south-east Asian waters as units of the Commonwealth Strategic Reserve with Headquarters in Singapore: *Melbourne, Supply, Vampire, Diamantina, Duchess, Parramatta, Derwent, Stuart, Yarra, Hawk, Gull, Curlew*, and *Snipe*. H.M.A. Ship *Sydney* also made a visit overseas.

Fleet Air Arm

The Fleet Air Arm of the Royal Australian Navy is maintaining two front line squadrons embarked in the operational carrier H.M.A.S. *Melbourne*. These squadrons currently consist of Sea Venom jet all-weather fighters, Gannet turbo-prop anti-submarine aircraft and Wessex anti-submarine helicopters. Three training and support squadrons are based at the Naval Air Station

H.M.A.S. *Albatross* at Nowra, New South Wales. During 1967 the Fleet Air Arm will undergo a change with the introduction of the Grumman Tracker and the Douglas Skyhawk as replacements for the Gannet and the Sea Venom. The Wessex is also being modernised by the addition of new and updated equipments. Other aircraft operated by the Navy are the Scout helicopter (survey ships), Iroquois helicopter (Reserve and training), Dakota, and Vampire jet.

Ship construction and repairs

There are two naval dockyards, at Garden Island, New South Wales, and at Williamstown, Victoria. Also, the dockyard at Cockatoo Island, which is operated by the Cockatoo Docks and Engineering Company Pty. Ltd. by agreement with the Commonwealth, carries out considerable naval work. All three dockyards carry out ship refitting for the Navy.

Included in the present ship construction plan is the building of two destroyer escorts, one each at Cockatoo Island and Williamstown Dockyards, and a 15,000 ton escort maintenance ship at Cockatoo Island. Four submarines of the Oberon class are under construction in the United Kingdom. In the United States a guided missile destroyer is being built for the Royal Australian Navy at the DeFoe Ship Building Yard. Twenty 100-foot patrol vessels are being built by Evans Deakin and Co. Pty. Ltd., Brisbane, Queensland, and Walkers Ltd., Maryborough, Queensland (ten by each contractor). The escort maintenance ship is expected to be completed in 1967. H.M.A.S. *Melbourne* is to undergo an extended refit in 1967. The Daring class destroyers *Vendetta* and *Vampire* are to be modernised, commencing in 1968. The anti-submarine guided weapon Ikara, which has been designed and developed in Australia, is to be fitted into the guided missile destroyers and escorts.

Personnel, entry, training, women's services, reserves

Personnel. The authorised established strength of the Royal Australian Navy for 1966-67 is 16,900. At 30 November 1966 the actual strength of the Permanent Naval Forces was 1,643 officers and 13,682 sailors, while there were 3,797 in the Citizen Naval Forces.

Naval college. The Royal Australian Naval College, H.M.A.S. *Creswell*, is at Jervis Bay. The College was established to provide trained officers for the R.A.N. Junior entry to the College is at the age of fifteen to seventeen years, and senior entry at a maximum age of nineteen and a half years. Subsequent training as midshipmen and sub-lieutenants is in ships of the fleet, at universities or technical colleges, and at Royal Navy training establishments in the United Kingdom. In November 1966 there were 85 cadet midshipmen under training.

Direct entry into Navy. To meet increasing requirements for officers direct entries are accepted into the Royal Australian Navy. Short service commissions of seven years are granted on completion of training as seamen, supply and secretariat or aircrew officers to suitable applicants who have completed their secondary schooling and who are over seventeen years of age and under twenty-three years of age for seamen and supply and secretariat applicants, and under twenty-four years for aircrew applicants. Other direct entries may be approved outside these age limits from persons with appropriate qualifications and experience.

Opportunities exist for university undergraduates studying medicine, dentistry or engineering to enter the R.A.N. and on successful completion of their studies to commence full-time service in the Navy. Fully qualified doctors, dentists, mechanical or electrical engineers, and instructors may also enter the R.A.N. directly if they are of the appropriate age.

Training establishments. H.M.A.S. *Cerberus* at Westernport, Victoria, is the main training establishment for adult sailors in the permanent naval forces, while several advanced training schools are established in New South Wales. The period of initial engagement for sailors varies from six years for tradesmen entry to nine or twelve years, and on completion sailors may re-engage for shorter periods up to the age of fifty.

H.M.A.S. *Nirimba* at Quakers Hill, New South Wales, is the naval school for apprentices. It provides secondary education, as well as technical training in trades, to boys aged fifteen to seventeen years. The school was established in 1956 to meet the R.A.N.'s increasing demand for highly skilled tradesmen. In November 1966 there were 667 naval artificer apprentices under training. H.M.A.S. *Leeuwin* at Fremantle, Western Australia, is the junior recruit training establishment. Entrants must be aged between fifteen and a half and sixteen and a half years. Training lasts one year and instruction is mainly academic, the remaining time being devoted to basic naval and disciplinary training. On completion of the course sailors are posted for a period of sea training, after which they proceed to technical and specialist courses. In November 1966 there were 599 junior recruits undergoing training.

Women's Services. The present Women's Royal Australian Naval Service was inaugurated in January 1951. The numbers serving in shore establishments in November 1966 were 22 officers and 611 Wrans. The Royal Australian Naval Nursing Service was reconstituted in November 1964, and its strength in November 1966 was 20 officers.

Emergency Reserve. In November 1964 approval was given to form the Royal Australian Naval Emergency Reserve to provide a readily available source of trained manpower which may be called on for continuous full-time service. The authorised establishment of this force is 2,000 officers and sailors. Members are required to complete thirteen days training annually and are paid an annual bounty.

Citizen Naval Forces. The Citizen Naval Forces consist of the Royal Australian Naval Reserve, Royal Australian Naval Reserve (Seagoing), R.A.N. Emergency List, Royal Australian Fleet Reserve, and Royal Australian Naval Volunteer Reserve. Members of the R.A.N.R. are the training reserve of the Citizen Naval Forces. They do weekly training and thirteen days annual continuous training. Officers are commissioned and may serve until retiring age is reached. Sailors engage for periods of three years. Other reserves do not carry out part-time training, but members may volunteer for periods of annual continuous training. Special courses and service for long periods are available to selected reservists.

Military defence

A detailed historical account of the Australian defence forces prior to federation appears in Year Book No. 2, pages 1075–80. *See also* Year Book No. 12, page 999.

Commonwealth systems

Under the terms of the Commonwealth of Australia Constitution Act the Commonwealth took over control of defence matters in March 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous Army in 1902 up to the re-establishment of the Military Board and the organisation of Commands after the 1939–45 War *see* Year Book No. 46 and earlier issues.

National Service Training was introduced in 1951 and suspended in 1959–60. In November 1964 the Government announced that National Service Training was to be re-introduced as from June 1965. The scheme provides for a period of two years full-time duty in the Regular Army followed by three years in the reserve. National Service registrants who are members of the Citizen Military Forces or who join prior to the ballot may elect to serve in the C.M.F. for a total of five or six years, depending on length of previous service, as an alternative to full-time continuous National Service Training. Special C.M.F. units have been formed to provide for those persons who wish to serve in the C.M.F., but who are unable to do so in normal units, because of remote location, etc.

Organisation

Army Headquarters is responsible for the policy and control of the Australian Military Forces. The Military Board consists of the Minister for the Army, President; the Chief of the General Staff; the Adjutant-General; the Quartermaster-General; the Master-General of the Ordnance; the Deputy Chief of the General Staff; the Citizen Military Forces Member; and the Secretary, Department of the Army. After the 1939–45 War, Command Headquarters were established to implement Army Headquarters policy and to command and administer those units placed under their authority. Command Headquarters are established in the capital cities of Australia and Papua-New Guinea. The geographic extent of Commands is as follows.

Northern Command—the State of Queensland.

Eastern Command—the State of New South Wales, less those parts included in Southern and Central Commands.

Southern Command—the State of Victoria and part of southern New South Wales.

Central Command—the State of South Australia, plus a portion of south-western New South Wales.

Western Command—the State of Western Australia.

Tasmania Command—the State of Tasmania.

Northern Territory Command—the Northern Territory.

Papua-New Guinea Command—the Territory of Papua-New Guinea.

The Army is divided into the Field Force, Forces in Papua-New Guinea and the Australian Support Area, with both Regular and Citizen Military Forces elements in each. The basic formation of the Field Force is the division, which consists of nine infantry battalions with supporting arms and services units. Within the division three task force headquarters can command varying combinations of divisional units. The substantial parts of the combat elements of one Regular and two C.M.F. divisions have been raised, together with logistic support units. The Regular element of the Forces in Papua-New Guinea consists of two battalions of the

Pacific Islands Regiment with a number of supporting units. It is intended to raise a third battalion of the Pacific Islands Regiment. An infantry battalion forms the major C.M.F. element. The Australian Support Area provides the training, administrative and command structure on the mainland.

As at 30 November 1966, units of the Regular Force were deployed overseas as follows. In Malaysia a battalion group was serving as part of the British Commonwealth Far East Strategic Reserve, while an anti-aircraft battery was serving at the invitation of the Malaysian Government. In Vietnam a Task Force of two battalions with supporting units, including aircraft support provided by the Royal Australian Air Force, was serving at the invitation of the Government of that country.

Personnel, training, women's services, cadets

Personnel. The effective strength at 30 November 1966 was: Australian Regular Army (including 1,821 Pacific Islanders and 879 Women's Services), 38,627; Citizen Military Forces, 32,926.

Staff College. Until 1938 the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938 an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945 the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946 the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Commonwealth training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. The course is held annually and is of twelve months duration. The normal intake is sixty-six students, and on successfully completing the course an officer is awarded the symbol 'psc'. The course is designed to train selected officers for appointments in all branches of the staff in peace and war and to prepare them to assume, after experience, command and higher staff appointments.

Included in the 1967 course will be students from the United Kingdom, Canada, New Zealand, India, United States of America, Thailand, Malaysia, the Philippines, Ghana, and Pakistan. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the Commonwealth of Nations liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom and Australia. An instructor is also provided by New Zealand.

Royal Military College. The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The length of the normal course is four years. While at the College, Staff Cadets are wholly maintained, and, in addition, receive payment increasing with each year of the course. The course of instruction is organised into military and civil departments, and instruction is given by officers of the Army and academic staff. On graduation cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces. In 1967 one Thai cadet commenced training at the College.

Officer Cadet School. The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces and civilians between the ages of eighteen and a half and twenty-two and a half years are eligible to apply for entrance. A special entry provides for candidates up to twenty-four and a half years. The course lasts for forty-four weeks, and on graduation cadets are appointed second-lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted before being posted to regimental duties. The Officer Cadet School also trains officers on occasions for Malaysia, New Zealand, Thailand, the Philippines, and Brunei.

Officer Training Unit. An Officer Training Unit has been established at Scheyville, New South Wales, which is responsible for the training of National Service officers.

Women's Royal Australian Army Corps School. The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses, and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between nineteen and a half and thirty-two years of age, or civilians between twenty-one and thirty years of age. The course is of six months' duration and on graduation cadets are appointed lieutenants in the Women's Royal Australian Army Corps.

Army Apprentices' School. The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army and to form a background for an Army career with prospects of promotion. The course is open to boys between the ages of fifteen and seventeen years and provides training in a number of highly skilled trades. A three-year course of intensive theoretical and practical work at the Apprentices' School is followed by one year in an appropriate Army workshop or technical unit. At the end of their third year boys are given their Army trade test and also take the Victorian Apprenticeship Commission's final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life when they eventually leave the Army. In addition to trade training the Apprentices' School provides general educational facilities up to the School Leaving Standard.

Other schools. Army Schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements and to produce trained instructors. Courses at Army Schools are conducted for members of both the Australian Army and the Citizen Military Forces.

The following Army Schools have been established: Jungle Training Centre, Armoured Centre, School of Artillery, School of Military Engineering, Transportation Centre, School of Military Survey, School of Signals, Infantry Centre, Army Intelligence Centre, Royal Australian Army Service Corps Centre, Royal Australian Army Medical Corps School of Army Health, Royal Australian Army Ordnance Corps Centre, Royal Australian Electrical and Mechanical Engineers' Training Centre, School of Music, Air Support Unit (Army Component), and Air Movement Training and Development Unit (Army Component).

Women's Services. In July 1950 approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment commenced into the Royal Australian Army Nursing Service in November 1950 and into the Australian Women's Army Corps early in 1951. In February 1951 the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June 1951 the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprise two Corps only, the Royal Australian Army Nursing Corps and the Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces, and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command and Papua-New Guinea Command. Companies of the Royal Australian Nursing Corps are located in each Command excluding Northern Territory Command and Papua-New Guinea Command.

Australian Cadet Corps. The Australian Cadet Corps is a voluntary organisation. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, however, does not form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout the Commonwealth and Papua and New Guinea, except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of fourteen years, and cadets, who, in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, cadet under-officers, warrant and non-commissioned officers on an authorised establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units. The establishment of the Corps is 43,700 all ranks, and at 30 September 1966 comprised 345 School Cadet units with a posted strength of 41,128, all ranks.

Air defence

A statement regarding the preliminary steps taken in connection with the development of air defence appears in Year Book No. 18, page 610, and one on the expansion and development and type of operations of the Royal Australian Air Force during the 1939-45 War in Year Book No. 36, page 1027. Details of the current defence expansion as it affects the R.A.A.F. were outlined by the Prime Minister in his speech in the House of Representatives on 8 November 1965.

Higher organisation

The Air Board is responsible to the Minister for Air for the control, organisation and administration of the Royal Australian Air Force and is constituted as follows: Chief of the Air Staff, Air Member for Personnel, Air Member for Supply and Equipment, Air Member for Technical Services, and the Secretary, Department of Air.

The Air Board exercises command and control over R.A.A.F. units in Australia through two commands, Operational Command and Support Command. The guiding principles of the command organisation within Australia are to decentralise day-to-day operating activities as far as possible and to streamline the force and make it as efficient as possible. The operational units overseas, working within the broad directives issued by the Air Board, comprise the R.A.A.F. component of the British Commonwealth Strategic Reserve located at Butterworth in Malaysia, a unit in Thailand and the R.A.A.F. component of the Australian task force in South Vietnam.

The members of the Air Board and their staffs are located at the Department of Air in Canberra. An R.A.A.F. representative is located in London and air attachés are located in Djakarta, Saigon, Paris, and Washington. *Operational Command* is responsible for the command of operational units and the conduct of their operations within Australia and its territories. *Support Command* is responsible for the recruitment and training of personnel, and the supply and maintenance of service equipment.

Organisation of units

Bases. Each command is established with the units necessary to carry out its allotted function. There is no fixed rule in relation to the number and types of units within each command as this depends upon the nature of its present and future responsibilities. Where possible, units having similar functions or requiring similar facilities are located together and the geographical locations are known as bases. While in general only units belonging to one command will be located on a particular base, it is sometimes necessary to locate units of both commands at one base.

Formations—comprising a headquarters unit to control the activities of a number of units at one location; each formation has a base squadron which provides common services to all units at the location.

Flying squadrons—bomber, fighter, transport, helicopter, and maritime reconnaissance squadrons which undertake the operational flying and, in conjunction with operational conversion units, the operational flying training commitments of the R.A.A.F.

Operational conversion units—specialising in operational conversion training of aircrew for the bomber and fighter squadrons.

Aircraft depots—specialising in major overhaul, etc., of aircraft and equipment and relieving flying units of these commitments.

Stores depots—centrally located depots to which stores and equipment ordered by the R.A.A.F. are delivered for distribution to units.

Flying, ground training, navigation, and radio training units—schools specialising in the aircrew and ground staff training required by the R.A.A.F.

Airfield construction squadron—specialising in the construction of R.A.A.F. aerodromes and associated buildings and works services.

Royal Australian Air Force Academy—the training college for officer cadet entrants to the R.A.A.F.

Telecommunications units—responsible for the communications services of the R.A.A.F.

R.A.A.F. Staff College—trains specially selected R.A.A.F. officers for higher staff and command posts.

Aircraft

The R.A.A.F.'s strike force of Canberra aircraft will be replaced in 1968 by the F111C, and by this stage the Avon-Sabre fighter squadrons will have completed conversion to the Mirage 111-O aircraft. Transport aircraft currently flown are Caribou, Dakota, Hercules, Metropolitan, and Viscount, with BAC 111, Mystere 20 and HS 748 on order. Both maritime reconnaissance squadrons operate Neptune aircraft at present, but the older aircraft are to be phased out of service with the introduction of the Orion in the near future. Two helicopter squadrons operate the Iroquois. Aircraft used for training are the Winjeel, Vampire, Dakota, Sabre, Canberra, and Mirage. Macchi and HS748 training aircraft are on order.

Personnel, reserve, women's services

At 1 December 1966 the authorised Permanent Air Force establishment was 20,978, and the Citizen Air Force, 1,081; the enlisted strength was Permanent Air Force 19,516 and Citizen Air Force 1,025; while the strength of the General Reserve was 6,889. The preceding Permanent Air Force figures include the Women's Royal Australian Air Force, which has an establishment of 1,028 and strength of 883, and the R.A.A.F. Nursing Service with an establishment of 91 and strength of 87.

Department of Supply

For information relating to the creation of the Department of Supply and its development up to 1959 *see* Year Book No. 51, page 1204, and earlier issues. On 18 December 1959 the Department assumed responsibility for the operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration. On 29 March 1962 Australia became a foundation member of the European Launcher Development Organization, and the Department accepted responsibility for the test firing of the launching rocket for that Organization's experimental satellite, using the facilities of the Woomera Rocket Range.

Functions of Department

The functions of the Department of Supply include the following.

Defence research and development, including the operation of the Joint United Kingdom—Australia Weapons Research Project, and Australian research and development through the Weapons Research Establishment, the Aeronautical Research Laboratories, the Defence Standards Laboratories, and associated establishments.

Manufacture, acquisition, provision, and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces.

Arrangement of contracts for the supply of goods and the performance of services.

Operation and management of factories, workshops and undertakings concerned in the production of munitions (including aircraft), clothing, canvas-ware, and other defence goods.

Operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration.

Test firing of the launching rocket for the European Launcher Development Organization's experimental satellite, using the facilities of the Woomera Rocket Range.

Acquisition, maintenance and disposal of strategic materials.

Planning and establishment of manufacturing facilities for the production of munitions an other defence goods.

Investigation and development of Australian sources of supply in connection with defence.

Sale or disposal of surplus Commonwealth property other than land or buildings.

Provision of Commonwealth transport facilities outside the Australian Capital Territory and the Northern Territory.

Provision and control of stores required for or in connection with matters administered by the Department of Supply and general storage for other Departments as required.

Provision of security services within the Department.

Arrangements for ascertaining costs and the control and limitation of profits in connection with the production of munitions and other defence goods.

The Minister for Supply administers the *Supply and Development Act* 1939–1966, except in so far as it concerns the building (*see also* the chapter Transport and Communication), repair and maintenance of merchant ships and the building, extension, alteration, repair, and maintenance of shipyards, drydocking, and repair facilities for merchant ships.

Research and Development Division

The Research and Development Division, which is under the control of the Chief Scientist, is responsible for research and scientific development in relation to war *matériel*, including the operation of the Joint United Kingdom—Australia Weapons Research Project. The Chief Scientist is also the Chairman of the Joint Project Board, which is responsible for the administration of the Joint Project undertaking. The headquarters of the Division is situated in Melbourne, and the following establishments are included in the Division: (*a*) Weapons Research Establishment, Salisbury, South Australia; (*b*) Defence Standards Laboratories, Maribyrnong, Victoria; Finsbury, South Australia; and Alexandria, New South Wales; (*c*) Aeronautical Research Laboratories, Fishermen's Bend, Victoria.

Weapons Research Establishment, Salisbury, South Australia

This establishment, which occupies an area of about six square miles, includes Edinburgh Airfield, where accommodation is provided for a unit of the R.A.A.F. which carries out the experimental and other flying required. Extensive facilities have been provided for branches of British firms which have contracted with the British Ministry of Aviation to develop weapons systems or components.

The Establishment has four main sections, namely the Trials Wing, the Space Physics Wing, the Weapons Research and Development Wing, and the Engineering Wing. The Trials Wing is concerned with the operation, development and instrumentation of the Woomera Range, also the planning, execution and assessment of trials. The Space Physics Wing undertakes the operation of United States satellite and space tracking stations throughout Australia and conducts research and development in support of the Range, including investigations into the characteristics of the upper atmosphere using sounding rockets. The Weapons Research and Development Wing is concerned primarily with Australian-initiated defence research, but assistance is also given with some phases of the Joint Project programme. The Engineering Wing provides the design and manufacturing effort required to support the work of the Establishment and the Range.

Testing ranges have been established at Woomera, which is approximately 280 miles north-west of Adelaide. A township, together with modern amenities such as hospital, school, kindergarten, community store, swimming pool, and all sporting facilities, has been built at Woomera to accommodate the staff and their families. The population is approximately 5,300.

European Launcher Development Organization (ELDO)

By virtue of the major facilities at Woomera for launching space vehicles and the associated technical skills, Australia has become a member of ELDO, which has been established with the object of developing a launching vehicle for placing satellites in orbit for peaceful purposes. Other members of ELDO are Britain, Belgium, the Federal Republic of Germany, France, Italy, and the Netherlands. Test firings of the ELDO rocket will continue at Woomera until 1969.

United States space projects

Agreements have been signed by the Australian and United States Governments for a co-operative programme for the establishment and operation in Australia of space vehicle tracking stations. The agencies for the Australian and American Governments are the Department of Supply and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space programme the stations are designed to track spacecraft in their orbits around the earth or on their journey into space, to receive telemetered data from the vehicle, and to issue radio commands control lingthe vehicle's manoeuvres. The Department of Supply is responsible for managing, staffing and operating the stations on behalf of NASA. The stations which are now in operation or under construction are at:

Island Lagoon near Woomera (deep space probes and optical tracking of scientific satellites);
Carnarvon in Western Australia (manned space flights and scientific satellites);
Tidbinbilla in the A.C.T. (deep space probes);
Orroral Valley in the A.C.T. (scientific satellites);
Honeysuckle Creek in the A.C.T. (manned space flights, particularly the 'man on the moon' Apollo project);
Cooby Creek near Toowoomba, Queensland (applications technology satellite).

An extensive communications system links the tracking stations with the control centres in the United States.

The orbits or courses of spacecraft determine the area in which tracking stations can be located. Within the area geographical and physical environment and protection from electrical noise determine the optimum location of the station. Being a large land mass in the Southern Hemisphere, diametrically opposite the United States, Australia is ideally situated for support of the United States space programme.

The initial stations near Woomera were managed by the Department of Supply's Weapons Research Establishment and manned by its personnel. With the new tracking stations industry has been brought into closer contact with space activities, contracts having been placed for their operation and maintenance by firms from industry. These contractors are SpaceTrack Pty Ltd (Tidbinbilla), Amalgamated Wireless (A'asia) Ltd (Carnarvon), E.M.I. Electronics (Australia) Pty Ltd (Orroral Valley), Standard Telephones and Cables Pty Ltd (Honeysuckle Creek), and Amalgamated Wireless (A'asia) Ltd (Cooby Creek). These firms are responsible for the operation and maintenance of the stations, subject to on-site directions of the Department of Supply Station Director.

NASA'S space projects requiring Australian participation are as follows.

Manned space flights

- Project Mercury—initial manned satellites (now completed).
- Project Gemini—extended orbits by two-man spacecraft; development of rendezvous techniques for two spacecraft.
- Project Apollo—landing of men on moon and their return to earth.

Scientific and applications satellites

- Smaller single experiment satellites (Explorers, etc.).
- Large multiple experiment scientific satellites (Orbiting Geophysical Observatories; Orbiting Astronomical Observatories, etc.).
- Applications satellites for communication (Echo), meteorology (Tiros, Nimbus), etc.
- Flight testing of technological experiments for application in communications, gravity gradient, meteorology, navigation, radio propagation, etc.

Deep space probes

- Ranger—hard landing on moon; T.V. pictures of moon's surface.
- Surveyor—soft landing of instrumented package on moon including T.V. cameras.
- Lunar Orbiter—orbiting of moon, with pictures of the surface.
- Mariner—probes to Mars, Venus, etc.

Defence Standards Laboratories

The broad function of these Laboratories is to provide a scientific service to the Armed Services, civilian defence and the factories, branches and establishments of the Department of Supply. It also provides trained groups in specialist fields for which there is no counterpart elsewhere in Australia. This service covers problems arising in the provision and use of defence *matériel* and is given generally within the fields of chemistry, physics, metallurgy, and engineering and, to a limited extent, in those of bio-chemistry and physiology.

Aeronautical Research Laboratories

The work of these Laboratories lies in the fields of: (*a*) aeronautics; (*b*) guided missiles; and (*c*) branches of engineering appropriate to the special facilities, resources or experience resulting from (*a*) and (*b*). In particular it comprises aerodynamics, including wind tunnel, free flight model and actual flight testing; structures of aircraft and missiles; metals and other materials used in the construction of airframes and engines; engines of the air-breathing type used for the propulsion of aircraft or missiles; human engineering studies relating to the operation of aircraft and guided missiles; research and development related to Australian-initiated guided missiles; and operational assessment studies on devices and techniques employed or proposed for the defence of Australia.

Production of munitions

The Department is responsible for the production of a wide range of munitions required by the Armed Services. Production is carried out substantially in Government factories, although some orders, mainly for components, are placed with private industry.

The following Government factories are currently in operation: Ammunition—Footscray, Victoria; Explosives and Filling—Albion and Maribyrnong, Victoria; Mulwala and St Marys, New South Wales; Ordnance—Maribyrnong, Bendigo and Port Melbourne, Victoria; Small Arms—Lithgow, New South Wales; Clothing—South Melbourne and Brunswick, Victoria.

The Ammunition Factory produces the complete round of small arms ammunition and also components for larger calibre gun ammunition, including empty cartridge cases, electronic and mechanical fuses, and primers. The Explosives Factories produce the various types of explosive compositions and propellants required for gun ammunition, rockets and guided missiles. The Filling Factory at St Marys fills and assembles into complete rounds of ammunition (other than small arms ammunition) the empty components and materials supplied by the other munitions factories and by private industry.

The Ordnance Factories at Maribyrnong and Bendigo are equipped to produce heavy ordnance equipment, such as naval guns and gun mountings; large turbine gears; steel shell bodies; empty rocket motors for guided missiles; trailers and tank transporters; and other items requiring heavy engineering capacity. As well as work for the Services, the Bendigo Factory is producing equipment for projects of national importance, e.g. control equipment for the Snowy Mountains Hydro-electric Authority, components for marine diesel engines for Australian shipping, large heavy engineering items for the coal, cement and steel industries, and coining presses for the Royal Australian Mint.

The Port Melbourne Factory builds large marine diesel engines for the Australian shipbuilding industry. Major forgings and fabrications for these engines are produced at the Ordnance Factories at Maribyrnong and Bendigo. The Small Arms Factory is equipped to produce the rifles and other small arms required by the Services. Current production is the 7.62-mm automatic rifle, for which orders have also been received from overseas, and the 9-mm carbine, which replaces the Owen as the infantry light machine gun. The Clothing Factories make uniforms, clothing and canvas goods for the three Services and also for the Postmaster-General's Department and some other Commonwealth authorities.

Production of aircraft and guided weapons

Production both in Government factories and in industry of military types of aircraft and aero engines and of other aircraft components required by the Royal Australian Air Force is administered by the Department of Supply. Planning of capacity and the negotiations of contractual arrangements concerning aircraft modification, repair and overhaul, and for the supply of spare parts and airborne equipment for the R.A.A.F., the R.A.N. and the Army are also functions of the Department.

The following factories are operated by the Department: The Government Aircraft Factory at Fishermen's Bend and the Final Assembly Workshops and Test Airfield at Avalon, Victoria and the Airframe Repair Workshops at Parafield and Northfield, South Australia. The current aircraft production programme at the Government Aircraft Factory comprises the French Mirage supersonic fighter for the R.A.A.F. and the Jindivik radio-controlled target aircraft, which has been or is being supplied to Britain, Sweden and the United States, as well as to the Weapons Research Establishment and the Royal Australian Navy. Apart from the Government Aircraft Factory, the Commonwealth Aircraft Corporation Pty Ltd is the only major aircraft manufacturer in Victoria, and this company is currently producing the French Atar turbo-jet engine for the Mirage fighter and also some sections of the airframe. The corporation has also been appointed the prime contractor for the Australian production for the R.A.A.F. of the Italian Macchi jet trainer and for the production of the British Viper engine that will equip this aircraft.

Other major activities carried out in the Government factories or by various private contractors are the manufacture of airframe and engine spare parts; the overhaul, repair and modification of military aircraft and engines currently in service with the R.A.A.F., R.A.N. and Army; and the reconditioning and servicing of aircraft instruments and other ancillary equipment.

The production of the Ikara anti-submarine missile is continuing at the Government Aircraft Factory at Fishermen's Bend. Production of the complete Ikara system, covering broadly the missile, motor, propellants, guidance equipment, launcher, and magazine handling equipment, is a combined effort by departmental establishments and industry directed and co-ordinated by the Department.

The construction of a building to be equipped as a facility to repair and maintain the Tartar surface-to-air missile, supplied by the United States for Australia's new missile destroyers, is well advanced and will be in operation in 1967. Later, the facility will be expanded to cater for other Service missiles.

The Department is responsible for the technical aspects of production and procurement from local industry of telecommunications and electronic equipment for the Australian Forces and for certain other organisations such as Colombo Plan and SEATO. A wide range of these equipments is obtained from industry; some of the more important projects are the complete equipping of several major automatic telegraph relay centres for Army and Air; the local manufacture of ultra high-frequency ground station equipment for communication with high-speed aircraft, automatic direction finders for the Macchi aircraft, remote-controlled target ranges for the Army, electronic guidance equipment for the Ikara system, and the development and production of a transistorised field transceiver for the Army.

Contracts have also been arranged for the local development of a high stability quartz crystal oscillator, and of other high stability electronic components such as various types of fixed and variable resistors, mica and tantalum capacitors and matched crystals.

Contract Board

Under the *Supply and Development Act* 1939–1966 the Contract Board is the authority responsible for the arranging of contracts for the performance of services and the purchase of supplies for the Naval, Military and Air Forces of the Commonwealth, as well as for the Department of Supply. The Board is also responsible for the sale or disposal of all surplus or unserviceable Commonwealth goods approved for disposal. By arrangement, the Board also arranges purchases on behalf of other Commonwealth departments and authorities which desire to use its facilities.

The Contract Board meets in Melbourne and comprises representatives of the Departments of Supply, Navy, Army, and Air. The Board's administrative organisation is the Contracts and Disposals Branch. In each State other than Victoria there is a District Contract Board with an administrative organisation similar to that of the Contract Board. The table following shows, in respect of the Contract Board organisation, the purchases and realisations from disposals for the years 1964–65 and 1965–66.

CONTRACT BOARD ORGANISATION: PURCHASES AND REALISATIONS FROM DISPOSALS, 1964-65 AND 1965-66

($'000)

	Purchases		Realisations from disposals	
	1964–65	1965–66	1964–65	1965–66
Contract Board, Victoria	82,632	129,549	4,171	3,315
District Contract Board—				
New South Wales	18,528	25,294	2,249	1,950
Queensland	3,578	4,474	975	662
South Australia	5,591	7,007	1,234	1,054
Western Australia	1,025	1,662	465	292
Tasmania	183	230	115	104
Total	**111,537**	**168,216**	**9,209**	**7,377**

Defence supply planning

The central planning authority of the Department is the Planning Branch, whose principal functions are:

- to study manufacturing capacity available for the Services' requirements in peace and war;
- to plan for and to assist in the development of additional production capacity;
- to prepare submissions on defence production preparedness to the Higher Defence Machinery;
- to plan the organisation of industrial resources for defence production in war;
- to provide and administer stocks of relevant materials and reserve pools of plant equipment and other requirements needed for rapid expansion of production in the event of war;
- to prepare advance co-ordinated production programmes against Service orders and to analyse and interpret achievement against these programmes for the information of the Department and the Services;
- to provide advisory services in the field of materials, supply and utilisation to Government factories and contractors engaged in the production of munitions requirements;
- to administer the national stockpile;
- to administer overseas aid programmes allocated to the Department; and
- to undertake commercial sales.

A series of Industry Advisory Committees has been established to advise the Minister and the Department on the ability of industry to meet the Services' *matériel* requirements for mobilisation and war. The Committees are: Aircraft and Guided Weapons; Chemical; Electrical; Electronics and Telecommunications; Heavy Engineering; Light Engineering; Fibres, Textiles, Clothing and Cordage; Leather and Footwear; Machine Tools and Gauges; Materials; Rubber. Members of the Committees include industrialists of wide experience and the highest ability in their chosen fields.

Stores and Transport Branch

This Branch, administered by a Board of Management and working under the direction of a General Manager, functions as the central storage authority and the central transport authority for all Commonwealth Departments. It is the authority for the arrangement of furniture removals at departmental expense in all States, but not in the Northern Territory. It has agents in Darwin. It also operates a shipping and customs section and the England–Australia bulk air freight scheme for Commonwealth Departments.

On 30 June 1966 the Branch had under its control land, buildings and works, vehicles, plant and equipment valued at $24,774,796 and 3,192,000 sq ft of storage space as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

Finance Branch

The total expenditure on Department of Supply activities during the year 1965–66 was $146,311,000, comprising $71,364,000 (net) from Parliamentary appropriations, and $74,947,000 from Trust Fund Accounts. The latter included expenditure of $13,976,000 for Stores and Transport and $56,253,000 in Government Munitions and Aircraft Factories.

CHAPTER 5

REPATRIATION

The Repatriation Commission, established under the *Repatriation Act* 1920–1966, consists of three full-time members. It is responsible for the administration of the Repatriation Act and associated legislation, all matters of policy and the general administration and overall supervision of the Repatriation Department. The central office is in Melbourne and there is a branch office, under the control of a Deputy Commissioner, in each State.

The principal functions of the Department are: the payment of war and service pensions to eligible ex-servicemen and ex-servicewomen and their dependants; the provision of medical treatment to ex-servicemen and ex-servicewomen for injuries and illnesses caused or aggravated by their war service; the provision of medical treatment in certain circumstances to ex-servicemen and ex-servicewomen who are suffering from injuries and illnesses not caused or aggravated by war service; and the provision of medical treatment to widows and dependants of deceased ex-servicemen whose deaths are due to war service.

Benefits are provided in respect of service, not only in the 1914–18 and 1939–45 Wars, but also in the Korea and Malaya operations and with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces.

Other functions of the Repatriation Department are outlined in a later section of this chapter.

For information on war service land settlement *see* Chapter 20, Public Finance; for statistics relating to war service homes *see* Chapter 10, Housing and Building and 20, Public Finance.

War pensions

The first provision for the payment of war pensions to ex-servicemen and their dependants was made by the Commonwealth Parliament in the *War Pensions Act* 1914. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act* 1920 (amended from 31 December 1950 to the Repatriation Act). The main features relating to war pensions under repatriation legislation are set out in the following paragraphs.

Eligibility for pensions

Claims for eligibility for war pensions are determined in the first instance by Repatriation Boards, of which there is one in each State of the Commonwealth. Members of women's services are eligible for pensions and other benefits, as prescribed in the Act, on the same basis as male members of the forces. Amendments to the Act in 1943 considerably widened the eligibility provisions, to the benefit, mainly, of members of the Citizen Military Forces who had not served outside Australia. These provisions are summarised as follows.

A member of the forces who served (*a*) outside Australia, (*b*) in the Territories of Australia, such as Papua and New Guinea, or (*c*) within Australia in circumstances which can be regarded as combat against the enemy is covered for war pension purposes in respect of incapacity or death which may result from any occurrence that happended during the period from the date of his enlistment to the date of the termination of his service in respect of that enlistment.

In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.

There is a third ground applicable to all members except those with less than six months camp service. This provides that, where a condition existed at enlistment, a pension may accrue if it is considered that the condition was aggravated by service.

If, at any time after discharge, an ex-serviceman who served in a theatre of war becomes incapacitated or dies from pulmonary tuberculosis, war pension is payable as if the incapacity or death resulted from an occurrence on service. (*See also* Service pensions, later.) Medical treatment may also be provided.

Korea and Malaya operations. The commencement of hostilities in Korea and Malaya in 1950 made necessary the insertion in the Repatriation Act of a new division, under the terms of which the pension provisions of the Act were extended to Australian ex-servicemen and ex-servicewomen who served or were allotted for duty in prescribed operational areas. A new Regulation was also made, in 1951, to make such service personnel eligible for almost all the benefits available under the existing Regulations applicable to members of the forces.

Repatriation (*Far East Strategic Reserve*) *Act* 1956–1966. Provision was made under this Act for Australian forces who served in South-east Asia as part of the British Commonwealth Strategic Reserve. This Act, together with Regulations made under it, gave members with Malayan service the right to many benefits available under the Repatriation Act.

Repatriation (*Special Overseas Service*) *Act* 1962–1966. This legislation provides repatriation benefits for serving members of the defence forces, the circumstances of whose service expose them to risks above the normal conditions of peace-time service. Regulations made under the Act prescribe special areas within which service qualifies for Repatriation benefits. These special areas now include the Malayan Peninsula and Singapore and fifty miles to seaward, but excluding the territories of Indonesia; South Vietnam; an area in Borneo comprising Sarawak, Brunei and Sabah and an area fifty miles to seaward but excluding any territories of the Philippines.

Rates

The main classes of war pensions are the special (T.P.I.) rate, the intermediate rate, the general rate, and the war widows' pension. These are not subject to a means test except where stated for certain classes of dependants.

The *special rate* of war pension is payable to those who are totally and permanently incapacitated and are unable to earn more than a negligible percentage of a living wage. The weekly rate is $30.50, plus $4.05 wife's allowance and $1.38 for each child under sixteen years.

The *intermediate rate* of war pension, which previously applied only to certain cases of tuberculosis, was extended from 6 October 1965 to include ex-servicemen who, because of the severity of a war-caused incapacity, can only work part-time or intermittently and in consequence are unable to earn a living wage. The weekly rate is $21.25, plus $4.05 wife's allowance and $1.38 for each child under sixteen years.

The *general rate* of war pension is the rate payable to those who suffer war-caused disabilities but are not thereby prevented from working, although their earning capacity may be reduced. The actual pension payable is assessed in accordance with the degree of incapacity suffered. The maximum (100 per cent) rate is $12 a week. A wife, and children under sixteen years, also receive pensions at rates according to the assessed degree of incapacity of the ex-serviceman, the maximum being $4.05 for a wife and $1.38 for each child.

The *war widows' pension* is paid to widows of ex-servicemen who died as a result of war service and to their children under the age of sixteen years. A war widow's pension may also be paid to the widow of an ex-serviceman who was receiving, at the time of his death, the special rate of war pension or the equivalent rate payable to double amputees. The weekly rates are: widow, $13; first child, $3.90; second and each subsequent child, $2.75.

Other dependants of an ex-serviceman who is suffering from a disability due to war service may be granted pensions under certain circumstances. Such pensions are subject to a means test and are assessed in accordance with the degree of the ex-serviceman's incapacity. Except in the case of a widowed mother of an unmarried ex-serviceman, other dependants are required to prove dependence on the ex-serviceman.

Allowances

The following allowances are provided in addition to pension.

Domestic allowance ($7 *a week*). This is paid, in addition to pension, to a widow of an ex-serviceman whose death is due to war service; if she is fifty years of age, or is permanently unemployable, or has a dependent child under the age of sixteen years, or a dependent child over sixteen years being educated or trained and not in receipt of an adequate living wage.

Attendant's allowance (*maximum rate* $10.50 *a week*). This allowance is paid, in addition to war pension, to certain classes of seriously disabled ex-servicemen, for example, war blinded, those who are paralysed, and certain double amputees.

Clothing allowance. A clothing allowance is paid at various rates (38c to 75c a week) to an ex-serviceman who, as a result of war service, has lost an arm or a leg or, because of an injury to a limb, is required to use a surgical aid or appliance. An amount not exceeding $19.50 in any one year is also payable to certain other war disabled ex-servicemen.

Sustenance allowance. This allowance is paid where an ex-serviceman is prevented from following his normal occupation through treatment of a war-caused disability or while undergoing medical investigation. The rate payable, where out-patient treatment is being received for a period of up to four weeks, or in-patient medical investigation is being carried out, is the same as the general (100 per cent) rate pension, less the amount of any war pension being paid.

Where an ex-serviceman is receiving in-patient treatment for a war-caused disability, is undergoing periods of essential convalescence immediately following discharge from hospital, or is prevented from following his usual occupation because of the necessity of out-patient treatment for a war-caused disability for a continuous period in excess of four weeks, a higher rate to bring the sustenance allowance up to the equivalent of the special (T.P.I.) rate is paid.

The wife, and any children under sixteen years of age, of an ex-serviceman who is receiving a sustenance allowance, are paid an amount which, when added to any war pension being paid, is equal to the full general rate pension for a wife and such children.

Recreation transport allowance. This allowance provides transport for recreation purposes and may be paid to an ex-serviceman who, as a result of war service, suffers certain amputations of the arms or legs or is seriously disabled to the extent that his powers of locomotion are negligible.

Other allowances and general assistance. These include a guardian's allowance, re-establishment loans and allowances, funeral benefits, vocational training allowances for education and training of children, fares and allowances for loss of remunerative time in connection with medical or pension purposes, and motor vehicle allowances for seriously disabled ex-servicemen.

Appeals tribunals

The principal Act was amended as from 1 June 1929 to create tribunals to hear appeals in respect of war pensions. War Pensions Entitlement Appeal Tribunals are empowered to hear and decide any appeal by or on behalf of ex-servicemen or their dependants against decisions of a Repatriation Board or the Repatriation Commission that the incapacity or death of an ex-serviceman did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a 'Nil' assessment of war pension made by a Repatriation Board or the Repatriation Commission in respect of the incapacity of an ex-serviceman which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the tribunals to hear appeals by certain members whose applications for a service pension had been refused on the grounds that they were not suffering from pulmonary tuberculosis or were permanently unemployable.

Summary of war pensions

The following tables provide a summary of war pensions (excluding miscellaneous war pensions) for the 1914–18 War, the 1939–45 War, the Korea and Malaya operations, the Far East Strategic Reserve, and the Special Overseas Service. Statistics relating to miscellaneous war pensions are shown later in this chapter.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1965-66

	1914–18 War	1939–45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service (*a*)	Total
New claims granted . . No.	1,455	20,121	801	170	168	22,715
Restorations . . . No.	100	453	18	. .	. .	571
Claims rejected(*b*) . No.	1,402	5,620	277	87	17	7,403
Pensions cancelled (gross) No.	406	25,826	183	16	3	26,434
Deaths of pensioners . No.	5,441	4,831	29	1	1	10,303
Number of pensions in force at 30 June 1966 .	103,041	531,217	10,317	1,012	181	645,768
Annual pension liability at 30 June 1966 . $'000	54,818	100,798	1,116	99	34	156,865
Amount paid in pensions during the year 1965–66 . . . $'000	n.a.	n.a.	n.a.	n.a.	n.a.	170,146

(*a*) *See* page 92—*Repatriation* (*Special Overseas Services*) *Act* 1962–1966. (*b*) Number of ex-servicemen who had their claims for all their disabilities rejected.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
New claims granted	34,337	36,118	32,235	27,774	22,715
Restorations	1,300	1,035	992	803	571
Total additions	*35,637*	*37,153*	*33,227*	*28,577*	*23,286*
Pensions cancelled (gross) . . .	18,816	28,020	25,275	25,932	26,434
Deaths of pensioners	7,950	8,867	9,440	10,339	10,303
Total reductions	*26,766*	*36,887*	*34,715*	*36,271*	*36,737*

Classes of war pensions

The following tables provide an analysis of the total number of new claims granted, pensions in force and members on special rates for 1965–66.

WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1965-66

Class	1914–18 War	1939–45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Ex-servicemen	639	5,535	148	38	59	6,419
Wives of ex-servicemen	666	5,669	149	38	44	6,566
Children	143	8,743	503	94	65	9,548
Other dependants	7	174	1	..	..	182
Total	**1,455**	**20,121**	**801**	**170**	**168**	**22,715**

WAR PENSIONS IN FORCE: AUSTRALIA, 30 JUNE 1966

Class	1914–18 War	1939–45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Ex-servicemen	39,219	180,874	2,807	314	61	223,275
Wives	38,585	154,421	2,166	217	32	195,421
Children	600	162,964	4,971	428	44	169,007
War widows	23,860	19,688	105	13	17	43,683
Children of deceased ex-servicemen	113	6,113	149	35	26	6,436
Orphans	14	144	3	1	..	162
Parents	413	6,617	111	3	1	7,145
Brothers and sisters	40	97	4	..	..	141
Others	197	299	1	1	..	498
Total	**103,041**	**531,217**	**10,317**	**1,012**	**181**	**645,768**

WAR PENSIONS: MEMBERS ON SPECIAL RATES OR EQUIVALENT, AUSTRALIA 30 JUNE 1966

Class	1914–18 War	1939–45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Totally and permanently incapacitated ex-servicemen	11,147	10,694	42	..	..	21,883
Blinded ex-servicemen	207	239	2	..	..	448
Tuberculous ex-servicemen	342	200	3	..	..	545
Tuberculous ex-servicemen (intermediate rate)	83	201	4	..	..	288
Temporarily totally incapacitated ex-servicemen	278	1,464	28	4	..	1,774
Ex-servicemen suffering other disabilities	45	49	2	..	..	96
Total	**12,102**	**12,847**	**81**	**4**	..	**25,034**

Number of war pensions and annual liability, States, etc., 30 June 1966

The following table shows the number of pensions in force and annual liability for each war, field of operations or service at 30 June 1966 according to place of payment. (The amount paid is shown later in this chapter.)

WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY STATES, ETC., 30 JUNE 1966

Place of payment	Number of war pensions in force at 30 June 1966				Annual pension liability (a) ($'000)
	Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	
1914–18 WAR					
New South Wales(b)	12,641	12,534	8,315	33,490	18,290
Victoria	12,738	12,478	8,168	33,384	18,101
Queensland	5,276	5,220	2,548	13,044	7,111
South Australia(c)	3,114	3,270	1,951	8,335	4,262
Western Australia	3,056	3,445	1,642	8,143	3,540
Tasmania	1,659	1,639	987	4,285	2,482
Abroad	735	925	700	2,360	1,032
Total	39,219	39,511	24,311	103,041	54,818
1939–45 WAR					
New South Wales(b)	63,809	106,703	12,153	182,665	35,745
Victoria	49,178	88,014	8,466	145,658	27,049
Queensland	26,914	49,979	4,795	81,688	16,598
South Australia(c)	17,642	31,743	3,065	52,450	9,006
Western Australia	15,881	26,880	2,634	45,395	8,023
Tasmania	6,865	13,878	985	21,728	3,874
Abroad	585	747	301	1,633	503
Total	180,874	317,944	32,399	531,217	100,798
KOREA AND MALAYA OPERATIONS					
New South Wales(b)	1,092	2,685	139	3,916	415
Victoria	651	1,541	59	2,251	237
Queensland	495	1,346	78	1,919	219
South Australia(c)	200	528	17	745	81
Western Australia	223	650	31	904	93
Tasmania	96	308	11	415	41
Abroad	50	82	35	167	30
Total	2,807	7,140	370	10,317	1,116
FAR EAST STRATEGIC RESERVE					
New South Wales(b)	132	307	23	462	42
Victoria	55	88	19	162	20
Queensland	88	180	6	274	25
South Australia(c)	9	23	..	32	2
Western Australia	25	37	3	65	7
Tasmania	3	6	1	10	2
Abroad	2	5	..	7	1
Total	314	646	52	1,012	99

(a) Includes domestic allowance payable to widows. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY STATES, ETC., 30 JUNE 1966—*continued*

Place of payment	Number of war pensions in force at 30 June 1966				Annual pension liability (a) ($'000)
	Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	
SPECIAL OVERSEAS SERVICE					
New South Wales(*b*) . .	36	55	24	115	21
Victoria	4	4	6	14	3
Queensland	14	11	7	32	5
South Australia(*c*) . .	4	2	..	6	1
Western Australia . .	3	4	7	14	4
Tasmania	..	..	..	..	..
Abroad	..	..	..	..	..
Total	61	76	44	181	34
TOTAL					
New South Wales(*b*) . .	77,710	122,284	20,654	220,648	54,513
Victoria	62,626	102,125	16,718	181,469	45,410
Queensland	32,787	56,736	7,434	96,957	23,958
South Australia(*c*) . .	20,969	35,566	5,033	61,568	13,352
Western Australia . .	19,188	31,016	4,317	54,521	11,667
Tasmania	8,623	15,831	1,984	26,438	6,399
Abroad	1,372	1,759	1,036	4,167	1,566
Grand total . . .	223,275	365,317	57,176	645,768	156,865

(*a*) Includes domestic allowance payable to widows. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

Summary of war pensions

The following table shows, for each war, field of operations or service and in total, the number of pensions granted, claims rejected, pensions in force, and the annual liability for pensions in each of the years ended 30 June 1962 to 1966.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1961–62 TO 1965–66

Year	Pensions granted	Claims rejected (*a*)	Number of war pensions in force at 30 June				Annual pension liability at 30 June (*b*) ($'000)
			Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	
1914–18 WAR							
1961–62 . .	2,422	1,872	48,670	46,772	23,144	118,586	47,781
1962–63 . .	2,394	1,854	46,606	45,212	23,566	115,384	47,410
1963–64 . .	2,050	1,678	44,401	43,521	23,846	111,768	47,145
1964–65 . .	1,631	1,481	41,820	41,353	24,191	107,364	47,730
1965–66 . .	1,455	1,402	39,219	39,511	24,311	103,041	54,818
1939–45 WAR							
1961–62 . .	30,794	7,030	165,101	350,297	28,506	543,904	77,107
1962–63 . .	32,496	6,125	170,594	345,914	29,723	546,231	81,092
1963–64 . .	29,119	6,113	175,301	341,272	30,803	547,376	85,336
1964–65 . .	25,068	5,525	178,463	331,164	31,847	541,474	92,015
1965–66 . .	20,121	5,620	180,874	317,944	32,399	531,217	100,798

(*a*) The number of claimants who had the claims for all their disabilities rejected. (*b*) Includes domestic allowance payable to widows.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1961–62 TO 1965–66—*continued*

Year	Pensions granted	Claims rejected (*a*)	Number of war pensions in force at 30 June				Annual pension liability at 30 June (*b*) ($'000)
			Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	
KOREA AND MALAYA OPERATIONS							
1961–62	969	383	2,208	4,919	285	7,412	797
1962–63	1,035	342	2,412	5,618	290	8,320	876
1963–64	862	271	2,554	6,175	322	9,051	945
1964–65	858	231	2,687	6,673	340	9,700	1,031
1965–66	801	277	2,807	7,140	370	10,317	1,116
FAR EAST STRATEGIC RESERVE							
1961–62	152	70	104	146	26	276	32
1962–63	193	48	166	264	36	466	48
1963–64	196	58	223	396	39	658	62
1964–65	208	49	275	536	39	850	76
1965–66	170	87	314	646	52	1,012	99
SPECIAL OVERSEAS SERVICE(*c*)							
1963–64	8	..	1	5	2	8	1
1964–65	9	..	3	8	6	17	3
1965–66	168	17	61	76	44	181	34
TOTAL							
1961–62	34,337	9,355	216,083	402,134	51,961	670,178	125,718
1962–63	36,118	8,369	219,778	397,008	53,615	670,401	129,427
1963–64	32,235	8,120	222,480	391,369	55,012	668,861	133,489
1964–65	27,774	7,286	223,248	379,734	56,423	659,405	140,854
1965–66	22,715	7,403	223,275	365,317	57,176	645,768	156,865

(*a*) The number of claimants who had the claims for all their disabilities rejected. (*b*) Includes domestic allowances payable to widows. (*c*) Not applicable prior to 1963–64.

The following table shows, for the years 1961–62 to 1965–66, the amounts paid in pensions and the places where they were paid.

WAR PENSIONS: AMOUNT PAID(*a*), STATES, ETC., 1961-62 TO 1965-66
($'000)

Place of payment	1961–62	1962–63	1963–64 (*b*)	1964–65	1965–66
New South Wales(*c*)	46,091	48,106	53,108	52,809	58,851
Victoria	40,281	41,815	45,526	45,064	49,526
Queensland	19,300	20,750	23,040	23,295	25,928
South Australia(*d*)	12,016	12,349	13,500	13,209	14,633
Western Australia	10,162	10,509	11,547	11,430	12,617
Tasmania	5,351	5,663	6,152	6,210	6,914
Abroad	1,605	1,539	1,656	1,466	1,677
Total	**134,805**	**140,731**	**154,530**	**153,483**	**170,146**

(*a*) Includes domestic allowances paid to widows. (*b*) Includes five 12-weekly payments. (*c*) Includes Australian Capital Territory. (*d*) Includes Northern Territory.

Miscellaneous war pensions

The Commission is also responsible for the payment of pensions and allowances to beneficiaries under the *Seamen's War Pensions and Allowances Act* 1940–1966, the *Interim Forces Benefits Act* 1947–1966, the *Native Members of the Forces Benefits Act* 1957–1966, and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war time.

The following table shows the number of pensions under the various Acts, and the annual liability at 30 June 1966, and the table thereafter shows the amounts paid during the years 1961–62 to 1965–66 and the place of payment.

MISCELLANEOUS WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, AUSTRALIA, 30 JUNE 1966

Class	Number of pensions in force at 30 June 1966				Annual pension liability ($'000)
	Members (*a*)	Dependants of members	Dependants of deceased members	Total	
Act of grace . . .	121	151	57	329	107
Seamen's war pension .	70	108	82	260	80
New Guinea civilians .	1	. .	85	86	84
Interim forces . . .	11	26	. .	37	2
Native members of the forces	91	240	19	350	36
Total	**294**	**525**	**243**	**1,062**	**309**

(*a*) 'Member' in this context is a person in respect of whose wartime experience a pension is paid.

MISCELLANEOUS WAR PENSIONS: AMOUNT PAID, STATES, ETC. 1961-62 TO 1965-66
($'000)

Place of payment	1961–62	1962–63	1963–64 (*a*)	1964–65	1965–66
New South Wales(*b*) .	137	144	150	156	161
Victoria . . .	66	67	71	70	76
Queensland . .	46	38	45	42	46
South Australia(*c*) .	32	32	35	30	34
Western Australia .	16	17	17	17	20
Tasmania . . .	4	5	5	4	4
Abroad . . .	2	3	. .	1	3
Total . . .	**303**	**305**	**323**	**321**	**344**

(*a*) Includes five 12-weekly payments. (*b*) Includes Australian Capital Territory.
(*c*) Includes Northern Territory.

Service pensions

The *Repatriation Act* 1920–1966 provides for a service pension to be paid, subject to a means test of income and property, to the following persons.

Ex-servicemen who served in a theatre of war and have attained the age of sixty years or are permanently unemployable;

Ex-servicemen who suffer from pulmonary tuberculosis, irrespective of the area of their service; and

Ex-servicewomen who suffer from tuberculosis, or who served in a theatre of war, or served abroad or embarked for service abroad and have attained the age of fifty-five years, or are permanently unemployable.

Rates of pension

The maximum rate of service pension is the same as that paid to an age or invalid pensioner by the Department of Social Services. A single or married ex-serviceman receives a pension of $13.00 a week. If, however, an ex-serviceman's wife is receiving a social service pension, a tuberculosis allowance or a service pension as a member of the forces, the rate is $11.75 a week. The service pension of an ex-serviceman is increased by $1.50 a week for each eligible child other than the first and by $4.00 a week if a guardian's allowance is payable.

The maximum weekly rates payable to a service pensioner's wife and eligible children are: wife, $6.00; first child, $1.50; other children up to three in number, 25c each. *Eligible child* means a child of a service pensioner, under the age of sixteen years, or a child over that age who is wholly or substantially dependent on the pensioner and is undergoing full-time education, in which case pension may continue until the child's twenty-first birthday.

Supplementary assistance of $2.00 a week is paid in addition to service pension to an ex-serviceman who is paying rent, or for lodging, or board and lodging, and whose *means as assessed* do not exceed $1.00 a week or $2.00 a week if he is married. (The allowance is reduced if the *means as assessed* exceed these amounts.)

A service pensioner who is unmarried, widowed, divorced, or married but separated, and who has care and control of one or more children, qualifies for a guardian's allowance of $4.00 a week.

The means test sets limits to the amount of income or property which a pensioner may have for the purpose of service pension. The amount of service pension payable depends upon the claimant's *means as assessed*, which consist of his annual rate of income plus a property component equal to $2.00 for each complete unit of $20 of net value of property above $400. For married couples, except where they are separated or in other special circumstances, the income and property of each for purposes of applying the means test is taken to be half the total income and property of both, even if only one is a pensioner or claimant. A person's *means as assessed* may consist entirely of income, entirely of property, or of both income and property components. If a single person's *means as assessed* do not exceed $7 a week, he receives the maximum rate of pension. If his *means as assessed* exceed $7 a week, the rate payable is the maximum rate less the amount by which *means as assessed* exceed $7 a week. If his *means as assessed* are $20 a week or more, no service pension is payable.

Income means earnings and other forms of income derived from any source, with certain exceptions, of which the principal are: certain income derived from property, gifts or allowances from children, parents, brothers or sisters, benefits from friendly societies, child endowment, Commonwealth health benefits. The value of board and lodging received by a pensioner, either free or in return for services, is normally assessed as income at $1.25 a week. Property includes all real and personal property, such as houses, land, money in hand, in a bank or on loan, shares, investments or legacies, vehicles used for business purposes, and livestock. Property does not include an applicant's permanent home, furniture or personal effects, the surrender value of life insurance policies (up to $1,500), the value of any reversionary interest, the capital value of any life interest, annuity or contingent interest, or vehicles maintained only for personal use.

Eligibility for service pensions was extended on 1 November 1941 to veterans of the South African War 1899–1902 and in 1943 to members of the Forces of the 1939–45 War. Members of the Forces who served in Korea and those who served in Malaya prior to the commencement of the *Repatriation (Far East Strategic Reserve) Act* 1956–1966 are also eligible.

An ex-serviceman or ex-servicewoman in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not caused by war. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment, and treatment in Repatriation General Hospitals.

Operations

The following tables give a summary of service pensions.

SERVICE PENSIONS: SUMMARY, AUSTRALIA, 1965–66

	South African War	1914–18 War	1939–45 War	Korea-Malaya operations	Miscellaneous (*a*)	Total
New claims granted	9	3,173	4,814	15	19	8,030
Restorations	..	529	504	13	3	1,049
Cancellations (gross)	2	1,772	2,447	14	12	4,247
Deaths	22	3,192	775	1	5	3,995
Pensions in force at 30 June 1966	340	44,118	21,110	67	259	65,894
Annual liability at 30 June 1966 $'000	132	19,473	6,923	17	92	26,637
Amount paid in pensions during 1965–66 $'000	n.a.	n.a.	n.a.	n.a.	n.a.	28,172

(*a*) Includes native members of the forces and act of grace pensions.

SERVICE PENSIONS: SUMMARY, AUSTRALIA, 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66
New claims granted . .	13,007	11,485	9,822	8,209	8,030
Restorations . . .	926	962	1,065	1,035	1,049
Total additions . .	*13,933*	*12,447*	*10,887*	*9,244*	*9,079*
Cancellations (gross) . .	3,925	4,595	4,675	4,933	4,247
Deaths	2,736	3,274	3,572	3,944	3,995
Total reductions . .	*6,661*	*7,869*	*8,247*	*8,877*	*8,242*

Classes of service pensions

The following tables give an analysis of the total number of new claims granted and pensions in force for 1965–66.

SERVICE PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1965–66

Class	South African War	1914–18 War	1939–45 War	Korea-Malaya operations	Miscellaneous	Total
Ex-servicemen . .	9	2,423	2,818	7	. .	5,257
Wives of ex-servicemen .	. .	621	1,053	2	. .	1,676
Children . . .	. .	129	943	6	. .	1,078
Other	. .	. .	. .	. .	19	19
Total . . .	**9**	**3,173**	**4,814**	**15**	**19**	**8,030**

SERVICE PENSIONS: NUMBER IN FORCE, STATES, 30 JUNE 1966

State	South African War	1914–18 War	1939–45 War	Korea-Malaya operations	Miscellaneous	Total
New South Wales(*a*) .	158	14,309	6,551	17	. .	21,035
Victoria . . .	61	11,644	4,473	14	3	16,195
Queensland . .	38	6,917	4,262	19	251	11,487
South Australia(*b*) .	39	5,005	1,734	2	3	6,783
Western Australia .	35	4,686	3,025	9	2	7,757
Tasmania . . .	9	1,557	1,065	6	. .	2,637
Australia . .	**340**	**44,118**	**21,110**	**67**	**259**	**65,894**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

Number, by class, of service pensions and amount paid

The following tables show the number of each class of service pension in force, the annual ability and the amounts paid for the years 1961–62 to 1965–66.

SERVICE PENSIONS: NUMBER OF EACH CLASS OF PENSION AND ANNUAL LIABILITY, AUSTRALIA, 1961-62 TO 1965-66

Year	Number of service pensions at 30 June payable to—							Annual pension liability at 30 June
	Aged ex-servicemen	Ex-servicemen who are—		Dependants(*a*) of ex-servicemen where the ex-serviceman is—		Miscellaneous (*b*)	Total	
		Permanently unemployable	Suffering from pulmonary tuberculosis	Aged or permanently unemployable	Suffering from pulmonary tuberculosis			($'000)
1961–62 .	27,479	13,603	1,246	13,597	1,663	. .	57,588	20,860
1962–63 .	30,818	14,278	1,160	14,368	1,537	. .	62,161	22,759
1963–64(*b*)	32,834	14,471	1,118	14,701	1,464	200	64,788	24.652
1964–65 .	33,938	14,222	1,076	14,336	1,352	254	65,178	25.685
1965–66 .	34,381	14,321	1,065	14,571	1,297	259	65,894	26,637

(*a*) Includes dependants of deceased service pensioners. (*b*) Miscellaneous service pensions were not payable prior to 1963–64.

SERVICE PENSIONS: AMOUNT PAID, STATES, ETC., 1961-62 TO 1965-66(*a*)
($'000)

Place of payment	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales(*b*) .	6,313	7,095	7,981	8,494	9,499
Victoria . . .	4,244	4,949	5,654	5,974	6,626
Queensland . .	3,250	3,362	(*c*) 3,823	4,048	4,477
South Australia(*d*) .	2,193	2,487	2,689	2,766	3,025
Western Australia .	2,687	2,927	3,177	3,320	3,571
Tasmania . . .	736	837	874	904	964
Abroad . . .	. .	. .	. .	2	10
Australia . .	**19,423**	**21,657**	(*c*) **24,198**	**25,508**	**28,172**

(*a*) Includes miscellaneous service pensions which first became payable in 1963–64. However, separate figures for the amounts payable in that year (all in Queensland) are not available. Therefore the amounts payable in 1963–64 are not included above but with miscellaneous war pensions (*see* page 98). (*b*) Includes Australian Capital Territory. (*c*) *See* footnote (*a*). (*d*) Includes Northern Territory.

Medical treatment for ex-servicemen and dependants of ex-servicemen

Medical treatment is provided for all disabilities which have been accepted as due to war service. In addition, and subject to certain conditions, treatment is provided for disabilities not due to war service for: ex-servicemen and ex-servicewomen receiving war pensions at or exceeding the maximum general (100 per cent) rate; ex-servicemen who have contracted pulmonary tuberculosis; nurses who served in the 1914–18 war; widows and certain dependants of ex-servicemen whose deaths have been accepted as due to war service and of deceased T.P.I. pensioners; and service pensioners, including service pensioners of the Boer War.

In-patient treatment for eligible patients is provided at the six Repatriation General Hospitals (one in each State) and eight auxiliary hospitals and sanatoriums as follows: *New South Wales*—Lady Davidson Hospital; *Victoria*—McLeod Hospital and Anzac Hostel; *Queensland*—Kenmore Hospital, Rosemount Hospital and Anzac Hostel; *South Australia*—Biralee Hospital; and *Western Australia*—The Edward Millen Hospital. The Anzac Hostels specialise in the care and treatment of long-term patients.

The total number of available beds for patients in open wards or parts of wards in all these institutions at 30 June 1966 was 4,168, and expenditure amounted to $23,095,058. In addition, expenditure of $27,773,215 was incurred on medical services outside these institutions.

Repatriation hospitals and institutions

Details of full-time staff in Repatriation General Hospitals and other Repatriation institutions are given in the following table.

REPATRIATION HOSPITALS AND INSTITUTIONS: FULL-TIME STAFF STATES, 30 JUNE 1966

Type of institution	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
General hospitals—							
Medical staff	104	76	32	18	27	8	265
Nursing staff	757	492	256	223	198	44	1,970
Other staff	1,072	770	474	310	438	115	3,179
Total, general hospitals . .	*1,933*	*1,338*	*762*	*551*	*663*	*167*	*5,414*
Other in-patient institutions(*a*) .	213	112	169	36	35	. .	565
Out-patient clinics(*a*) . . .	163	73	21	32	24	. .	313
Limb and appliance centres(*a*) .	76	69	30	21	14	11	221
Grand total . . .	**2,385**	**1,592**	**982**	**640**	**736**	**178**	**6,513**

(*a*) Total staff.

The following table gives details of in-patients treated at Repatriation General Hospitals and other Repatriation institutions in each State. The figures shown refer to cases, e.g. a person who is admitted to hospital twice during a year is counted twice.

REPATRIATION GENERAL HOSPITALS AND INSTITUTIONS: IN-PATIENTS TREATED, STATES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
REPATRIATION GENERAL HOSPITALS							
In-patients at beginning of year .	1,397	762	537	347	401	113	3,557
Admissions and re-admissions during year	18,415	10,514	8,526	4,800	5,902	1,700	49,857
Total in-patients treated . .	*19,812*	*11,276*	*9,063*	*5,147*	*6,303*	*1,813*	*53,414*
Discharges	17,591	9,700	8,197	4,519	5,558	1,599	47,164
Deaths	958	846	384	321	354	98	2,961
In-patients at end of year . .	1,263	730	482	307	391	116	3,289
Average daily number resident .	1,276	692	456	300	409	98	3,231
OTHER REPATRIATION INSTITUTIONS							
In-patients at beginning of year .	176	110	131	29	33	. .	479
Admissions and re-admissions during year	1,427	210	952	134	201	. .	2,924
Total in-patients treated . .	*1,603*	*320*	*1,083*	*163*	*234*	. .	*3,403*
Discharges	1,366	211	956	127	199	. .	2,859
Deaths	42	5	8	. .	. .	. .	55
In-patients at end of year . .	195	104	119	36	35	. .	489
Average daily number resident .	185	102	126	36	29	. .	478

In addition to the Repatriation institutions, eligible patients may be treated in other country and metropolitan hospitals and nursing homes at Repatriation expense. During 1965–66, 13,523 Repatriation in-patients were accommodated and treated in hospitals and 465 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Repatriation Department in separate wings of psychiatric hospitals administered by the State authorities. At 30 June 1966 there were 845 Repatriation patients in these hospitals.

Out-patient treatment is provided throughout the Commonwealth at Repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1965–66, 566,461 out-patients were treated at Repatriation institutions and visits to or by local medical officers totalled 2,708,088.

General Repatriation benefits and miscellaneous

Other Repatriation Department activities

The activities of the Department in respect of general benefits for the welfare of ex-servicemen and dependants concern mainly education and training of children under the Soldiers' Children Education Scheme (*see* pages 104–5), medical benefits for widows and children of deceased ex-servicemen and for widowed mothers of deceased unmarried ex-servicemen, funeral expenses for certain classes of ex-servicemen and dependants, and allowances to certain classes of dependants.

These and new benefits designed for the re-establishment of servicemen and servicewomen after discharge were extended and made available, by legislation passed in June 1940, to servicemen and servicewomen engaged in the 1939–45 War, and in November 1950 and May 1963 to those engaged in the Korea and Malaya operations and to those serving in such other areas as may be prescribed under the *Repatriation (Special Overseas Service) Act* 1962–1966, respectively. The re-establishment benefits generally administered by the Repatriation Commission are: payment of re-employment allowance while awaiting employment; provision of tools of trade and equipment where they are necessary to employment; transportation expenses to meet the cost of fares and removal of household belongings where an ex-serviceman takes up training, employment, or a business, or settles on the land; supplements to wages of apprentices whose apprenticeships were interrupted by war service; re-establishment loans to enable ex-servicemen and widows to establish themselves in business, practices or occupations, including (until the Division of War Service Land Settlement began operations early in 1946) agricultural occupations; payment of re-establishment allowances during the early stages of establishment in business; gifts up to $150 for furniture to ex-servicemen who are blind or totally and permanently incapacitated, also to widows with children under sixteen years of age; and free passages to Australia for wives, widows and children of ex-servicemen who married abroad (and passages outward from Australia in certain cases of ex-servicemen and dependants).

In 1949 the Department took over the functions of the Re-establishment Division of the former Department of Post-War Reconstruction and became responsible for the co-ordination of all matters relating to training under the Commonwealth Reconstruction Training Scheme. This scheme is now concluded, the prescribed time limits for eligibility having expired on 30 June 1950. Re-establishment of the more seriously disabled, where ordinary training is not sufficient, continues to be a function of the Department, and special means have to be found to overcome each problem.

Expenditure in 1965–66 on general Repatriation benefits for all wars was $4,036,000, comprising: Soldiers' Children Education Scheme, $2,534,000; recreation transport allowance, $614,000; and other benefits $888,000. In addition, $34,000 was expended by other Commonwealth authorities on Repatriation employment and vocational training.

Expenditure by the Repatriation Department, 1965-66

The net expenditure by the Department for the year ended 30 June 1966 was $266,837,330 distributed as follows.

	$'000
Pensions, allowances and other benefits .	202,698
Medical treatment	50,868
Administration	10,074
Works, rent and maintenance . . .	3,197
Total . . .	**266,837**

Soldiers' Children Education Scheme

The Soldiers' Children Education Scheme was established in 1921 and operates with the assistance of voluntary Education Boards in each State. These boards consist of representatives of government and non-government education authorities and of ex-service and other organisations which have a general interest in the welfare of the children of ex-servicemen. The objects of the Scheme are to assist and encourage eligible children in acquiring a standard of education compatible with their aptitude and ability, and to prepare them to enter an agricultural, commercial, professional, or industrial calling of their own choice.

Eligible children. Eligible children are children of ex-servicemen whose deaths have been accepted as due to war service; or of ex-servicemen who died from causes not due to war service but who were receiving at the date of death a war pension at a special rate for blindness, total and permanent incapacity, pulmonary tuberculosis, or amputation of two or more limbs; or of ex-servicemen who, as a result of war service, are blinded, totally and permanently incapacitated, or receiving the special rate pension for pulmonary tuberculosis and are likely to receive such pension for a period of at least three years.

General benefits. From the commencement of primary education up to twelve years, school requisites and fares are provided. An education allowance is also payable for a child from commencement of secondary education or from the age of twelve years, whichever is the earlier, while the child is undertaking primary or secondary education. Further assistance beyond, or parallel with, the later years of secondary education is provided where an approved beneficiary continues with a course of specialised education or training necessary for a career. Specialised education covers a wide range and may include: professional degree or diploma courses at universities and technical colleges; theological training; cadet and pupilage training, i.e. training combined with employment, such as nursing, pharmacy and journalism; industrial, including apprenticeship training, and other courses of trade and business training approved by an Education Board; and agricultural training at an agricultural college. At this stage of training, in addition to the education allowance, fees are paid and text books, essential equipment and other minor benefits provided.

All education allowances are subject to an allowed income limit test, i.e. the amount of education allowance payable depends upon the amount of income a child receives over the allowed limit. The child's income for the purpose of determining the allowance payable means earnings from employment and other earnings from personal exertion and such portion of a scholarship, bursary or grant as the Education Board determines to be income. Income does not include war or service pensions paid for the child or any similar payment, income the child receives from private means, or income from casual employment during the entire period of a school or university vacation where the student is to continue as a full-time student under the scheme after the vacation. The parent's income does not affect the child's allowance. The scale of maximum allowances payable to eligible children at various stages of education is as follows.

SOLDIERS' CHILDREN EDUCATION SCHEME
WEEKLY RATES OF ALLOWANCES, JANUARY 1967
($)

Type of training	Living at home	Living away from home
At school—		
Aged 12 and under 14 years . .	1.90	6.32
Aged 14 ,, ,, 16 years . .	2.88	6.32
Aged 16 ,, ,, 18 years . .	6.33	9.78
Professional (university, etc.) . .	10.75	16.40
Agricultural	..	3.18
Industrial (apprenticeship, etc.) . .	2.30	4.60

The following tables show the costs of education under the scheme for the year ended 30 June 1966 and the number of children in receipt of benefit at 30 June 1966.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1965-66

($'000)

	N.S.W. (*a*)	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	Aust.
Cost of education of beneficiaries—							
Under 12 years of age . .	8	7	8	3	1	1	28
12 years of age and over . .	883	675	435	234	162	103	2,492
Total expenditure . .	**891**	**682**	**443**	**237**	**163**	**104**	**(*c*)2,520**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory. (*c*) Excludes oversea expenditure of $14,000.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS(*a*) AT 30 JUNE 1966

Type of training	N.S.W. (*b*)	Vic.	Qld	S.A. (*c*)	W.A.	Tas.	Abroad	Total
At school—								
Aged under 14 years(*d*)	905	656	462	191	195	143	8	2,560
Aged 14 and under 16 years . . .	1,085	711	535	281	221	167	10	3,010
Aged 16 and under 18 years . . .	539	540	269	164	119	72	9	1,712
Total at school .	*2,529*	*1,907*	*1,266*	*636*	*535*	*382*	*27*	*7,282*
Professional . . .	355	330	169	128	60	43	14	1,099
Agricultural . . .	9	9	13	. .	6	. .	1	38
Industrial . . .	3	10	. .	3	14	. .	. .	30
Grand total . .	**2,896**	**2,256**	**1,448**	**767**	**615**	**425**	**42**	**8,449**

(*a*) Refers only to children in receipt of an education allowance. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory. (*d*) From 12 years of age or the commencement of secondary education, whichever is the earlier.

Settlement of returned service personnel on the land

Reference to the settlement of returned service personnel on the land will be found in the chapter Public Finance.

Re-establishment benefits for national servicemen

Subject to prescribed conditions, special re-establishment benefits are provided for national servicemen under the *Defence* (*Re-establishment*) *Act* 1965–1966. They apply to all national servicemen whether or not they have served on 'special service' and ensure that servicemen will not be at a disadvantage on their return to civil life. The scheme includes appropriate full or part-time training as a supplement to skills acquired in the Army, refresher training for specialists and training for those who, for various reasons, may not be able to return to their former employment. The assistance includes payment of tuition fees, other associated fees and fares, and provision of books and equipment as appropriate. A training allowance is also provided for trainees undertaking full-time studies.

Re-establishment loans may be granted, subject to certain conditions, to those national servicemen who, prior to call-up, were engaged in professional practice, business, or agricultural occupations, or who, because of their call-up, were prevented from engaging in these occupations, and who are in need of financial assistance for their re-establishment in civil life.

The maximum amounts of the loans are business and professional $3,000, agricultural $6,000.

The Services Canteens Trust Fund

The Services Canteens Trust Fund was established under the *Services Trust Funds Act* 1947. Its funds are derived from the assets and profits of wartime services canteens, mess and regimental funds of disbanded units, and several other sources.

The total amount transferred to the Fund to 31 December 1966 was $11,053,986. The Act prescribed that, of this, $5 million and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible ex-servicemen and ex-servicewomen, and that the balance of the Fund should be used to provide relief for ex-servicemen and ex-servicewomen and their dependants in necessitous circumstances.

The Fund is administered by eleven honorary trustees appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939–45 War or are widows of men who served during the war. They serve in an honorary capacity.

Assistance from the Fund

Persons eligible for assistance from the Fund are those who, between 3 September 1939 and 30 June 1947, served in the Australian Naval, Military or Air Forces, including members of the canteens staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Forces who served in an official capacity on full-time paid duty, and their dependants. The trustees have introduced schemes for providing welfare relief for ex-servicemen and ex-servicewomen who are eligible for benefits and for their dependants; benefits for children of eligible ex-servicemen and ex-servicewomen who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible ex-servicemen and ex-servicewomen. From its inauguration in 1947 the Fund is to be available for forty years for welfare relief and for thirty years for educational benefits.

Welfare relief. The trustees have prescribed a policy for welfare relief which makes assistance available only to those who are in genuine distress from which they cannot extricate themselves by their own efforts. To 31 December 1966, $3,051,862 has been granted as welfare relief from the Fund, $1,891,228 to ex-servicemen and their dependants, and $1,160,634 to widows and orphans. The amount granted during 1966 was $167,712. A total of 33,317 ex-servicemen and ex-servicewomen and 16,489 widows and orphans were granted welfare assistance from the Fund to 31 December 1966.

Assistance under Afflicted Children's Scheme. The Fund assists dependent children suffering from afflictions which permanently disable or seriously retard their progress or prevent the enjoyment of normal health and strength, and who face a prospect of dependence on others for all or part of their lives. The extent to which assistance will be granted in a particular case depends largely on the nature of the child's affliction, the facilities available, the family circumstances, and the funds that can be made available. Up to 31 December 1966, 2,575 afflicted children had been assisted under the Afflicted Children's Scheme, involving an expenditure of $289,836. The amount granted during 1966 was $12,054. The number of new children assisted in 1966 was 37.

Educational Assistance Scheme. Educational assistance is restricted to children who are fifteen years of age and over, thirteen years and over where there are exceptional circumstances, and twelve years in the case of orphans. The object is to assist eligible children to obtain the highest education within their capacity. Assistance is in the form of awards ranging up to $400 a year depending on the nature of the course undertaken and the family circumstances. These awards are granted chiefly for children at secondary education level, but are also available for other types of education. They are designed to cover, or contribute towards, the cost of essential books, fees in cases where government school courses are not available, fares between the child's home and school, essential equipment and material, uniforms in certain cases, and maintenance for the child while at school. Higher training awards are provided for selected students for post-graduate study, in Australia or overseas, in the ancillary services to medicine, welfare and science, and also for selected craftsmen to gain experience in their trade overseas. One post-graduate scholarship is provided each year for study overseas, valued at $2,500 per annum for up to three years.

The number of children assisted under the educational assistance scheme to 31 December 1966 was 54,207, and the expenditure on educational awards, post-graduate scholarships and higher training awards to 31 December 1966 was $6,266,638. The number granted in 1966 was 7,108 at a value of $614,116.

Total assistance. The total assistance granted under the three schemes during 1966 was $793,882 and from the inception of the Fund to 31 December 1966 totalled $9,608,336.

CHAPTER 6

INTERNATIONAL RELATIONS

Relations with Commonwealth and other countries

Commonwealth relations

Australia's international relations have developed as a natural concomitant of Australia's growth from colonial status to independent nationhood. During this process Australia has remained on terms of close friendship and understanding with the United Kingdom. This intimate association, together with close co-operation with other countries of the Commonwealth of Nations, remains a basic principle of Australia's foreign policy.

Australia is represented at meetings of Commonwealth Prime Ministers, Finance Ministers and Ministers for External Affairs. It belongs to the sterling area, retains, with limitations, the system of judicial appeal to the Privy Council, maintains High Commissioners in twelve other Commonwealth countries, and is a member of the main Commonwealth organisations providing for co-operation in economic, scientific, educational, and other fields.

Between meetings of Commonwealth Prime Ministers the Australian Prime Minister consults with other Commonwealth Prime Ministers on matters of mutual interest. In addition, there is a constant flow of messages between the Australian Government and Governments of other Commonwealth countries. In defence matters Australia's armed services send representatives to discussions by Commonwealth Chiefs of Staff; Australian naval ships take part in combined exercises with the navies of other Commonwealth members, and Australian officers maintain liaison with the services of other Commonwealth countries.

Relations with the United States of America

An important feature of Australia's international relations is her relationship with the United States of America. This relationship is formally expressed in a treaty known as the ANZUS Treaty which was signed pursuant to Articles 51 and 52 of the United Nations Charter, and provides that in the event of armed attack on any one of them in the Pacific the U.S.A., Australia and New Zealand would each act to meet the common danger in accordance with its constitutional processes. The Treaty is designed to establish a closer working relationship between the three countries. The ANZUS partners, in their consultations, make no attempt to decide matters affecting the vital interest of other countries. The machinery of the ANZUS Treaty consists of a Council composed of the three Foreign Ministers or their deputies, which meets periodically to discuss matters of mutual concern.

Australia and Asia

Australia's geographical location to the south of Asia has become an increasingly important factor in Australia's foreign policy. Australia has sought to develop close relations and understanding with her Asian neighbours. This was evidenced by Australia's inclusion in 1963 as a full regional member of the Economic Commission for Asia and the Far East (ECAFE) and more recently by Australia's decision to join the Asian Development Bank. There has been increasing recognition by Asian leaders of Australia's concern with, and contribution to, the solution of the problems of the region.

SEATO

Following the cessation of fighting in Indo-China in 1954, Australia, with other countries situated in the south-east Asian region, or having responsibilities there, supported a proposal to form a collective defence alliance to guarantee the peace and security of the region from external aggression. On 8 September 1954 Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom, and the United States signed the South-East Asian Collective Defence Treaty at Manila. They also signed a Pacific Charter stating the principles on which they had acted. A Protocol to the Treaty extended its operation to Cambodia, Laos and the free territory under the jurisdiction of the State of Vietnam, although no action on these territories would be taken except at the invitation or with the consent of the government concerned.

While primary emphasis has been placed on the defence significance of the Treaty, an organisation has been established in Bangkok to co-ordinate activities to combat subversion both by counter-propaganda and security training and by the development of the economic and social welfare of the peoples of the Treaty Area. To facilitate this task the Australian Government in 1956 instituted a SEATO Aid Programme, under which by 30 June 1966 aid to the value of $14.09 million had been given to member countries in Asia to help develop their capacity to resist aggression and subversion and to stimulate economic development. This programme is complementary to Australia's Colombo Plan contribution. Under the scheme Australia is providing two geodetic survey vessels to the Philippines; a military technical training school, a vehicle base repair shop, and two 50 kW radio transmitters to Thailand; telecommunication and technical training equipment to Pakistan; and barbed wire, corrugated iron and blacksmith's tools for a town water supply system for Bien Hoa, two surgical teams, and primary school textbooks for Vietnam. Australia has also provided military training, and technical training in the fields of engineering, telecommunications, naval architecture and dockyard maintenance, security procedures, and surveying for more than 200 trainees from Asian member countries. In addition a number of senior service officers of other member countries have visited Australia to foster understanding and to develop co-operation between the armed forces.

The Colombo Plan

The Colombo Plan originated at a meeting of Commonwealth Foreign Ministers in Colombo in January 1950. The meeting set up a consultative committee to review economic development in south and south-east Asia. The task of this committee was to devise the most effective means of tackling the problems of economic development in the area and of focusing world attention on them.

Membership of the consultative committee is now made up of Australia, Canada, Ceylon, India, New Zealand, Pakistan, the United Kingdom, Malaysia, the United States, Burma, Camdodia, Indonesia, Japan, Laos, Nepal, the Philippines, Thailand, Vietnam, Korea, Bhutan, the Maldive Islands, Afghanistan, Singapore, and Iran.

Australian assistance under the Colombo Plan to 30 June 1966 amounted to $129,038,000. Of this, $89,466 000 had been spent on economic development projects and $39,572,000 had been spent under the Technical Co-operation Scheme. Australia has placed emphasis on the importance of technical assistance in providing a base for economic development. A summary of expenditure, by country and under different heads, is set out in the following table.

AUSTRALIA'S EXPENDITURE ON THE COLOMBO PLAN TO 30 JUNE 1966
($'000)

Country	Economic development	Technical assistance				Grand total
		Training	Experts	Equipment	Total	
Country—						
Afghanistan	..	46.8	0.1	..	46.9	46.9
Bhutan	284.4	..	..	..	..	284.4
Brunei	..	77.4	1.0	..	78.4	78.4
Burma	4,000.3	1,331.9	118.9	549.8	2,000.6	6,000.9
Cambodia	2,365.4	166.1	205.6	173.8	545.5	2,910.9
Ceylon	8,416.6	898.5	393.8	317.5	1,609.8	10,026.4
India	27,732.2	1,900.9	244.7	662.0	2,807.6	30,539.8
Indonesia	8,269.4	4,468.5	1,058.8	514.3	6,041.6	14,311.0
Korea	..	341.0	13.7	136.7	491.4	491.4
Laos	1,283.4	235.1	73.4	390 7	699.2	1,982.6
Malaysia—						
Malaya	1,072.4	3,560.4	981.5	687.1	5,229.0	6,301.4
Sabah	468.0	1,308.6	244.8	248.8	1,802.2	2,270.2
Sarawak	1,572.3	1,034.3	532.8	257.7	1,824.8	3,397.1
Nepal	265.1	191.1	61.3	29.6	282.0	547.1
Pakistan	23,835.7	1,582.5	523.4	953.4	3,059.3	26,895.0
Philippines	85.8	1,156.8	184.0	514.2	1,855.0	1,940.8
Singapore	..	1,549.3	550.6	769.0	2,868.9	2,868.9
Thailand	5,872.5	1,811.5	455.9	708.7	2,976.1	8,848.6
Vietnam	3,314.9	1,163.2	365.9	900.8	2,429.9	5,744.8
Maldives	..	3.0	..	..	3.0	3.0
General—						
Mekong Project	..	..	342.2	130.0	472.2	472.2
Miscellaneous	627.7	..	..	..	2,448.9	3,076.6
Total	89,466.1	22,826.9	6,352.4	7,944.1	(*a*)39,572.3	*a*129,038.4

(*a*) Includes Miscellaneous.

Economic development aid

Most of Australia's contribution under the Colombo Plan has been spent on providing predominantly Australian-made equipment for developmental projects or on gifts of commodities such as wheat, flour, fertiliser, coal, copper, and condensed milk which have been sold in the recipient country to raise counterpart funds for agreed developmental projects.

The projects assisted by Australia cover a wide range, including irrigation and preparation of land for food crops, irrigation and electric power projects, secondary industries, municipal services, road building, transport and communications facilities, broadcasting equipment, and lignite mining.

A Technical Co-operation Scheme has been an integral part of the Colombo Plan since its inception in 1950. Co-ordination of technical assistance is provided by a Council for Technical Co-operation, which meets regularly in Colombo, served by a Colombo Plan Bureau.

Technical assistance

Australia had spent a total of $22,827,000 on training awards under the Colombo Plan up to 30 June 1966. A total of 6,610 awards for training in Australia had been made. The main fields of study include engineering, public administration, education, nursing, science, medicine and health, and agriculture. Substantial numbers have also been trained in such fields as accountancy, arts, economics, food technology, social studies, and industry.

At 30 June 1966 a total of 4,260 awards had been granted under the correspondence scholarship scheme inaugurated by Australia in 1955. Main fields of study are accountancy, engineering, English, and trade courses.

Australia had spent a total of $6 360,000 on experts and advisers up to 30 June 1966. This involved the services of experts and advisers on 999 assignments. Of these, 63 experts were in the field at 30 June 1966. The majority were in Malaysia and Thailand.

The following table shows the number of training awards and experts provided to Colombo Plan countries by Australia up to 30 June 1966.

AUSTRALIA: TRAINING AWARDS AND EXPERTS PROVIDED UNDER COLOMBO PLAN TO 30 JUNE 1966

Country	Training awards	Correspondence awards	Expert assignments
Afghanistan	24	..	..
Brunei	24	13	1
Burma	467	352	14
Cambodia	46	..	29
Ceylon	357	616	62
India	763	299	35
Indonesia	1,042	286	62
Korea	135	..	1
Laos	84	..	10
Malaysia	1,483	2,217	198
Maldives	4	..	..
Nepal	47	..	6
Pakistan	481	..	57
Philippines	469	72	27
Singapore	395	324	101
Thailand	541	81	83
Vietnam	248	..	24
General, etc.	..	..	25
Total	**6,610**	**4,260**	**735**

At 30 June 1966 a total of 412 requests for technical equipment had been or were being met, at a total cost of $7,944,000. The range of items supplied include text books and Australians reference books for schools, universities and technical training institutions; equipment and tools

for technical education; livestock and equipment for breeding programmes; radio receivers for use in remote areas; film projectors and visual aids for training centres; X-ray equipment for hospitals; and agricultural research equipment.

In addition to training awards, experts and equipment, technical assistance funds have been spent on contributions to the Colombo Plan Bureau, publications, International House, training centres. and the ECAFE Asian Economic Development Institute.

Participation in the United Nations

Australia's contributions to the United Nations

Australia played an active part in drafting the Charter of the United Nations at the Conference on International Organization in San Francisco in 1945 and has been a consistent supporter of the principles and objectives of the United Nations since its foundation. Australia's influence in the affairs of the United Nations has been exerted primarily through the annual debates in the General Assembly, through membership of the Security Council (1946–47 and 1956–57) and the Economic and Social Council (1948–50, 1953–55 and 1962–64), and through the Trusteeship Council. In virtue of responsibilities for administration of the Trust Territories of Nauru and New Guinea Australia has been a member of the Trusteeship Council since it was established.

In 1950 Australia joined fifteen other member States in answering the Security Council's call to help the Republic of Korea to repel Communist aggression from the north, and members of all three armed services took part in the three years of fighting which followed. Australia has also been directly involved in United Nations activities in many other parts of the world. Australia has contributed its share of the costs, both assessed and voluntary, of all United Nations peace-keeping operations, the largest of which have been the United Nations Emergency Force (UNEF) in the Middle East since 1956, the United Nations Operation in the Congo (ONUC) in 1960–64, and the United Nations Force in Cyprus (UNFICYP) since 1964. In addition to financial contributions, an element of forty Australian policemen has been made available for service with UNFICYP.

In the economic, social and cultural sphere Australia has contributed to the work of the United Nations through membership of its specialised agencies and of the Economic and Social Council. Australia is a foundation member of one of the four Regional Economic Commissions—the Economic Commission for Asia and the Far East, the 4th and 15th Sessions of which were held in Australia. In 1963 Australia became a regional member of ECAFE.

Australia has had varying periods of service as a member of the executive bodies of the principal specialised agencies. As a leading agricultural country, Australia played a large part in the establishment of the Food and Agriculture Organization (FAO). Australia is a member of the Board of Governors of the International Atomic Energy Agency. Australia served as a member of the governing body of the International Labour Organisation either as a Titular Government member or as a Deputy member from 1945 to 1960, and in 1963 was again elected to the Governing Body as a Titular Government member for a further three-year term. Australia has also been a prominent member of the International Civil Aviation Organization since its inception, and in 1962 was re-elected to the Council as one of the nine States of principal civil aviation importance. Australia was a member of the executive board of the United Nations Children's Fund (UNICEF) from 1947 to 1961 and was re-elected in 1966 for a three-year term.

Australia's contributions in international aid

Australia's contributions towards various forms of international aid through the United Nations and other international organisations to June 1966 amounted to about $160,000,000. This is additional to the funds provided for the Colombo Plan and the cash grant for the development of Papua and New Guinea in 1965–66.

The Australian Government contributed $7,527,000 to the United Nations Expanded Programme of Technical Assistance (EPTA) from the inception of the Programme in 1950 to December 1965. This was spent on the provision of experts, training, supplies, and equipment, and supplemented Australian aid under the Technical Co-operation Scheme of the Colombo Plan. Australia also contributed $1,500,000 to the Special Fund to December 1965. EPTA and the Special Fund were merged on 1 January 1966 into the United Nations Development Programme (UNDP) and Australia's contribution to the Programme to 30 June 1966 was $585,000.

Australian experts sent abroad under the United Nations aid programmes up to 31 December 1966 totalled 558. A total of 686 United Nations trainees had come to Australia up to 31 December 1966.

Other contributions by Australia (to June 1966) have included $45,044,000 to the United Nations Relief and Rehabilitation Administration (UNRRA); $6,594,000 to the International Refugee Organization; $3 660 000 to Post-UNRRA Relief: $13 576 000 for food and medical supplies to the United Nations Children's Fund (UNICEF), which has been helping the underprivileged children of the world since its establishment in 1946; $3,598,000 of essential supplies to the United Nations Korean Reconstruction Agency; $3,140,000 of supplies to the United Nations Relief and Works Agency for Palestine refugees; $1,308,000 for the programmes for the United Nations High Commissioner for Refugees; and $96,000 for the WHO Malaria Eradication Special Account.

Australia has also contributed $530,000 to the Intergovernmental Committee for European Migration's programme for providing transportation from Hong Kong to countries of resettlement for refugees of European origin coming out of mainland China.

In addition, Australia has made significant contributions to the development funds of international financial institutions; to June 1966 these amounted to $47,590,000 to the International Bank for Reconstruction and Development, $1,996,000 to the International Finance Corporation, and $14,774,000 to the International Development Association.

In 1962 Australia supported the establishment of the UN/FAO World Food Programme and contributed $1,187,000 in cash and kind for the three years of the Programme.

Diplomatic representation

The Department of External Affairs is responsible for advising the Minister for External Affairs and the Australian Government on the conduct of foreign affairs and relations with foreign Governments. Its officers staff the Australian diplomatic service and the consular and administrative service.

Australian missions overseas

In December 1966 Australia maintained the following diplomatic and consular missions abroad.

AUSTRALIAN MISSIONS OVERSEAS

Embassies (30)

Argentina—Calle Rivadavia 1829, Piso 5, Buenos Aires.
Austria—Concordia-platz 2/3, Vienna 1.
Belgium—4, boulevard Brand Whitlock, Woluwe-St-Pierre, Brussels-4.
Brazil—Caixa Postal 251-ZC-00, Rio de Janeiro.
Burma—88 Strand Road, Rangoon.
Cambodia—94 Moha Vithei Preah Bat Norodom, Phnom Penh.
China—C/o The Grand Hotel, Taipei.
*Ethiopa**—C/o Australian High Commission, Nairobi, Kenya.
France—13 Rue Les Cases, Paris 7E.
Germany, Federal Republic of†—Kölner Strasse 157, Bad Godesburg, Bonn.
Greece—8 Makedonon Street, Athens.
Indonesia—Djalan Tharin, Gambin, Djakarta.
Ireland—33 Fitzwilliam Square, Dublin.
Israel—145 Hayarkon Street, Tel Aviv.
Italy—Via Sallustiana 26, Rome.
Japan—9 Mita Tsuna-machi, Shiba, Minato-ku, Tokyo.
Korea—32-10 Songwoldong, Sudae Moon-Ku, Seoul.
Laos—Quartier Phone Xay, Boite Postale No. 292, Vientiane.
Mexico—Paseo de la Reforma 195, 5° Piso, Mexico 5D.F. Mexico City.
Nepal‡—C/o Australian High Commission, New Delhi, India.
The Netherlands—Lange Voorhout 18, The Hague.
The Philippines—L & S Building, 1414 Boxas Street, Manila.
South Africa—Standard Bank Building, Church Square, Pretoria.
Sweden—Sergelstorg 12, Stockholm 40.
Thailand—323 Silom Road, Bangkok.
Union of Soviet Socialist Republics—13 Kropotkinsky Pereulok, Moscow.
United Arab Republic—1097 Corniche el Nil, Garden City, Cairo.
United States of America—1700 Massachusetts Avenue, Washington, D.C.
Vietnam—Caravelle Building, Place Lam Son, Saigon.
Yugoslavia—Hotel Majestic, 28 Rue Obilicev Venac, Belgrade.

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* The Australian High Commissioner in Kenya is concurrently Ambassador to Ethiopia. † The Australian Ambassador is also head of the Australian Military Mission in Berlin. ‡ The Australian High Commissioner in India is concurrently Ambassador to Nepal.

High Commissions (14)

*Britain**—Australia House, The Strand, London, W.C.2.
Canada—Royal Bank Chambers, 90 Sparks Street, Ottawa, 4, Ontario.
Ceylon—3 Cambridge Place, Colombo, 7.
Ghana—6/26 Milne Avenue, Accra.
India† —No. 1/50-G Shantipath, Chanakyapuri, New Delhi.
Kenya—Jeevan Bharati Bldg, Harambee Ave, Nairobi.
Malaysia—44 Jalan Ampang Kuala Lumpur.
Malta—Airways House, Gaiety Lane, Cnr High Street Sliema, Valletta.
New Zealand—I.C.I. House, Molesworth Street, Wellington N1.
Nigeria—Investment House, 21–25 Broad Street, Lagos.
Pakistan—United Bank Bldg, 54 Haider Road. Rawalpindi.
Singapore—MacDonald House, Orchard Road, Singapore 9.
Tanzania—Bank House, Independence Avenue, Dar es Salaam.
Uganda‡—Jeevan Bharati Bldg, Harambee Ave, Nairobi.

Other (14)

Military Mission in Berlin§—Olympia Stadium, Charlottenburg 9, Berlin.

Mission to—
- *European Economic Community*—4, boulevard Brand Whitlock, Woluwe-St-Pierre, Brussels-4.
- *United Nations (New York)*—750 Third Avenue, New York 17, New York.
- *United Nations (Geneva)*—56–58 rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.

Consulate-General in—
- *Spain*—Calle General Sanjurjo 44, Madrid 3.
- *Switzerland*—56–58 rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.
- *New York*—International Building, 636 Fifth Avenue, New York 20, New York.
- *San Francisco*—350 Post Street, Union Square, San Francisco, California.

Consulate in—
- *Denmark*—Norrevold 68, Copenhagen.
- *Germany, Federal Republic of*—2 Hamburg 39, Neuerwall 39, Hamburg.
- *New Caledonia*—45 Tce Rue de Verdun, Noumea.
- *Portuguese Timor*—Dili.
- *South Africa*—1001 Colonial Mutual Building, 106 Adderly Street, Cape Town.

Commission in—
- *Fiji*—C.M.L.A. Building, 3 Central Street, Suva.

The Department of External Affairs is responsible for the control and administration of all the diplomatic and consular missions listed above with the exception of the High Commission, London, which is the responsibility of the Prime Minister's Department.

Specialist officers of the Trade Commissioner Service, other Commonwealth Government Departments and the Defence Services stationed abroad are attached to Australian diplomatic or consular missions. Senior attached officers are in some cases accredited to the missions with diplomatic or consular ranks approved by the Minister for External Affairs. In addition, the Department of Trade and Industry maintains Trade Commissioner posts which engage in trade promotion in a number of cities where Australia does not have diplomatic or consular representation (for complete list of Trade Commissioner posts, *see* page 114).

The Department of Immigration similarly maintains offices overseas which engage in recruitment of migrants. A complete list of these offices is given on page 115.

Diplomatic representatives in Australia

There are thirty-four non-Commonwealth and ten Commonwealth countries represented by diplomatic missions in Australia.

The following list shows the addresses of the overseas representatives in Australia. Full details of Commonwealth and foreign representation in Australia may be obtained from publications issued by the Department of External Affairs, Canberra. Consular representatives are not included. Particulars of these are contained in a publication *Consular Representatives and Trade Commissioners in Australia*, issued by the Department of External Affairs, Canberra. There are more than 180 such representatives in Australia, and fifty-three countries are represented.

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* Administered by Prime Minister's Department. † The Australian High Commissioner in India is concurrently Ambassador to Nepal. ‡ The Australian High Commissioner in Kenya is concurrently High Commissioner to Uganda. § The Australian Ambassador to Germany is also head of the Australian Military Mission in Berlin.

DIPLOMATIC REPRESENTATIVES IN AUSTRALIA

Embassies (30)

Argentina—5a Arkana Street, Yarralumla, Canberra, A.C.T.
Austria—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T.
Belgium—19 Arkana Street, Yarralumla, Canberra, A.C.T.
Brazil—55 Mugga Way, Red Hill, Canberra, A.C.T.
Burma—85 Mugga Way, Red Hill, Canberra, A.C.T.
Cambodia—5 Canterbury Crescent, Deakin, Canberra, A.C.T.
China—70 Empire Circuit, Forrest, Canberra, A.C.T.
France—6 Darwin Avenue, Acton, Canberra, A.C.T.
Germany, Federal Republic of—Empire Circuit, Yarralumla, Canberra, A.C.T.
Greece—22 Arthur Circle, Forrest, Canberra, A.C.T.
Indonesia—4 Hotham Crescent, Deakin, Canberra, A.C.T.
Ireland—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T.
Israel—Turrana Street, Yarralumla, Canberra, A.C.T.
Italy—27 State Circle, Deakin, Canberra, A.C.T.
Japan—3 Tennyson Crescent, Forrest, Canberra, A.C.T.
Korea—42 Mugga Way, Red Hill, Canberra, A.C.T.
Laos—71 National Circuit, Forrest, Canberra, A.C.T.
Mexico—40 Mugga Way, Red Hill, Canberra, A.C.T.
*Nepal**—11–7, 4 chome, Minami-Azabu, Minato-ku, Tokyo, Japan.
The Netherlands—120 Empire Circuit, Yarralumla, Canberra, A.C.T.
The Philippines—1 Moonah Place, Yarralumla, Canberra, A.C.T.
Portugal—22 Bougainville Street, Manuka, Canberra, A.C.T.
South Africa—3 Zeehan Street, Red Hill, Canberra, A.C.T.
Sweden—Turrana Street, Yarralumla, Canberra, A.C.T.
Switzerland—37 Stonehaven Crescent, Deakin, Canberra, A.C.T.
Thailand—9 Daly Street, Deakin, Canberra, A.C.T.
Union of Soviet Socialist Republics—78 Canberra Avenue, Griffith, Canberra, A.C.T.
United Arab Republic—38 Empire Circuit, Forrest, Canberra, A.C.T.
United States of America—State Circle, Yarralumla, Canberra, A.C.T.
Vietnam—39 National Circuit, Forrest, Canberra, A.C.T.

High Commissioners (10)

Britain—Commonwealth Avenue, Canberra, A.C.T.
Canada—Commonwealth Avenue, Canberra, A.C.T.
Ceylon—35 Empire Circuit, Forrest, Canberra A.C.T.
Ghana—35 Endeavour Street, Red Hill, Canberra, A.C.T.
India—63 Mugga Way, Red Hill, Canberra, A.C.T.
Malaysia—71 State Circle, Yarralumla, Canberra, A.C.T.
Malta—261 La Perouse Street, Red Hill, Canberra, A.C.T.
New Zealand—M.L.C. Building, London Circuit, Civic Centre, Canberra, A.C.T.
Pakistan—59 Franklin Street, Forrest, Canberra, A.C.T.
Singapore—81 Mugga Way, Red Hill, Canberra, A.C.T.

Legations (4)

Denmark—115 Pitt Street, Sydney, N.S.W.
Finland—537 New South Head Road, Double Bay, Sydney, N.S.W.
Peru—17 Canterbury Crescent, Deakin, Canberra, A.C.T.
Uruguay—75 Flinders Way, Red Hill, Canberra, A.C.T.

Agents-General for States

From early times the Australian colonies maintained agents in London to encourage immigration and to carry out commercial and financial negotiations. Since federation the States have continued to maintain Agents-General in London, all of whom work in close co-operation with the High Commissioner for Australia at Australia House, The Strand, London. The addresses of the Agents-General are as follows: New South Wales—56–57 The Strand, London, W.C.2; Victoria—Victoria House, Melbourne Place, The Strand, London, W.C.2; Queensland—Marble Hall, 409–10 The Strand, London, W.C.2; South Australia—South Australia House, 50 The Strand, London, W.C.2; Western Australia—Western Australia House, 115 The Strand, London, W.C.2; Tasmania—457 The Strand, Charing Cross, London, W.C.2.

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* The Nepalese Ambassador to Japan is concurrently Ambassador to Australia and to New Zealand.

Overseas trade representation

The Australian Trade Commissioner Service

The Department of Trade maintains Trade Commissioners in thirty-two countries. The first permanent Trade Commissioner Post was set up in Canada in 1929. Before that Australia's only official trade representatives abroad were in the High Commission Office in London and at the Office of the Commissioner-General for Australia in New York. By late 1966 Trade Commissioners were established at the following posts: United States of America—New York, Washington, Los Angeles, and San Francisco; Canada—Vancouver, Ottawa and Montreal; West Indies—Trinidad; Britain and Europe—London, The Hague, Vienna, Athens, Paris, Bonn, Hamburg, Geneva, Stockholm, and Rome; Persian Gulf—Bahrain; Africa—Lagos, Nairobi, Johannesburg, and Cairo; Lebanon—Beirut; India—New Delhi, Bombay and Calcutta; Ceylon—Colombo; South-east Asia—Singapore, Djakarta, Kuala Lumpur, Bangkok, and Hong Kong; Japan—Tokyo, Osaka; New Zealand—Wellington, Christchurch and Auckland; Philippines—Manila; Pakistan—Karachi; South America—Buenos Aires and Lima. Twenty-eight editions of the Department of Trade's promotion periodical *Austral News* now circulate in over 100 countries in four languages. (*See also* Australian Trade Missions in the chapter Overseas Transactions.)

The addresses of Australian Trade Commissioner Posts overseas are shown in the following list.

Trade Commissioner Service of the Commonwealth of Australia

Argentina—Australian Embassy, Seccion Comercial, Calle Rivadavia 1823–1° Piso-Dto. 'A', Buenos Aires.
Austria—Australian Embassy, Concordia-platz 2/3, Vienna 1.
Bahrain—Almoayyed Building, Government Road, Bahrain.
Britain—Australia House, The Strand, London, W.C.2.
Canada—1155 Dorchester Boulevard West, Montreal 2, P.Q.; Suite 608, Burrard Building, 1030 W. Georgia Street, Vancouver 5, B.C.; Australian High Commission, Royal Bank Chambers, 90 Sparks Street, Ottawa 4, Ontario.
Ceylon—Australian High Commission, 3 Cambridge Place, Colombo 7.
France—2nd Floor, 26 Rue de la Pépinière, Paris, 8E.
Germany, Federal Republic of—Australian Embassy, Kölnerstrasse 157, Bad Godesburg, Bonn; 2000 Hamburg 11, Postfach 2168.
Greece—Australian Embassy, 8 Makedonon Street, Athens.
Hong Kong—Union House, Chater Road, Hong Kong.
India—Mercantile Bank Building, 52 Mahatma Gandhi Road, Bombay 1; 2 Fairlie Place, Calcutta 1; 1/50G Shantipath Chanakyapuri, New Delhi.
Indonesia—C/o Australian Embassy, Djalan Thamrin, Djakarta.
Italy—Australian Embassy, Via Sallustiana 26, Rome.
Japan—9 Mita Tsuna-Machi, Shiba, Minato-ku, Tokyo; Asahi Seimei Building, 4th Floor, 50, 5 chome, Koraibashi-suji, Higashi-ku, Osaka.
Kenya—Silopark House, Queensway, Nairobi.
Lebanon—5th Floor, L'Union de Paris Building, Rue Maamari, Beirut.
Malaysia—44 Ampang Road, Kuala Lumpur.
The Netherlands—143 Koninginnegracht, The Hague.
New Zealand—ANZ Bank Building, Cnr Queen and Victoria Streets, Auckland C.1; Phoenix Building, 89–91 Worcester Street, Christchurch; Australian High Commission, Fourth Floor, I.C.I. House, Molesworth Street, Wellington.
Nigeria—Australian High Commission, Investment House, 21–25 Broad Street, Lagos.
Pacific Islands—c/o Department of Trade and Industry, A.N.Z. Bank Building, cnr Pitt and Hunter Streets, Sydney, N.S.W.
Pakistan—Australian High Commission, 9 Kutchery Road, Karachi 4.
Peru—Monterosa Buildings, Jiron Arica 837, Lima.
The Philippines—Australian Embassy, L & S Building, 1414 Roxas Street, Manila.
Singapore—Australian High Commission, MacDonald House, Orchard Road, Singapore, 9.
South Africa—10th Floor, Europa House, 32 Plein Street, Johannesburg.
Sweden—Australian Embassy, Sergelstorg 12, Stockholm 40.
Switzerland—Australian Consulate-General, 56–58 Rue De Moillebeau, Petit Saconnex 1211, Geneva 19.
Thailand—Australian Embassy, 40 Chartered Bank Lane, Bangkok.
Trinidad—Colonial Building, 72 South Quay, Port-of-Spain, Trinidad.
United Arab Republic—Australian Embassy, 1097 Corniche el Nil, Garden City, Cairo.
United States of America—Paramount Buildings, 1735 Eye Street, N.W. Washington, D.C.; Australian Consulate-General, International Building, 636 Fifth Avenue, New York 20, New York; Australian Consulate-General, 350 Post Street, Union Square, San Francisco, California; 3600 Wilshire Boulevard, Los Angeles 5, California.

Australian Trade Correspondents and Marketing Officers

Australian Trade Correspondents and Marketing Officers have no official status but supplement the work of the Trade Commissioner Service. Correspondents are located in Suva, Fiji; Valletta, Malta; Port Louis, Mauritius; Tel Aviv, Israel; and Istanbul, Turkey. Marketing Officers are located in Rangoon, Burma and Madrid, Spain.

Trade Commissioners of overseas governments in Australia

Britain—Senior British Trade Commissioner—Commonwealth Avenue, Canberra, A.C.T.
British Trade Commissioners—London Assurance House, 16–20 Bridge Street, Sydney, N.S.W.; 330 Collins Street, Melbourne, Vic.; M.L.C. Building, cnr Adelaide and Edward Streets, Brisbane, Qld; F.C.A. Building, Franklin Street, Adelaide, S.A.; Prudential Building, 189 St George's Terrace, Perth, W.A.
Office of the Hong Kong Government Trade Representative—Kembla Building, Margaret Street, Sydney, N.S.W.
Office of the Fiji Government Representative—38 Martin Place, Sydney, N.S.W.
Canada—Canadian Trade Commissioners—A.M.P. Building, Circular Quay, Sydney, N.S.W.; 2 City Road, South Melbourne, Vic.
Ceylon—Ceylon Trade Commissioner—The Wales House, 66 Pitt Street, Sydney, N.S.W.
China—Telford House, 300 George Street, Sydney, N.S.W.
India—Indian Trade Commissioner—Caltex House, 167–187 Kent Street, Sydney, N.S.W.
Malaysia—Malaysian Trade Commissioner—71 State Circle, Yarralumla, A.C.T.
New Zealand—Senior New Zealand Trade Commissioner—280–288 George Street, Sydney, N.S.W.
New Zealand Government Trade Commissioner—330 Collins Street, Melbourne, Vic.
Pakistan—Bligh House, 4–6 Bligh Street, Sydney, N.S.W.
South Africa—South African Trade Commissioner—622 St Kilda Road, Melbourne, Vic.

Commonwealth Migration Offices overseas

The Department of Immigration has established offices overseas to handle migration matters and in some countries regional offices are provided. Inquiries and applications may also be made at any Australian diplomatic, consular or trade post overseas. Special facilities for migration business are available as follows.

Austria—Australian Embassy, Migration Office, Teinfaltstrasse 1, Vienna.
Belgium—Australian Embassy, Migration Office, 4, boulevard Brand Whitlock, Woluwe–St–Pierre, Brussels–4.
Britain—'Canberra House', Migration Office, 10–16 Maltravers Street, The Strand, London, W.C.2.
Denmark—Australian Consulate, Norrevold 68, Copenhagen.
Fiji—Australian Commission, C.M.L.A. Building, 3 Central Street, Suva.
France—Australian Embassy, Migration Office, 28 Rue de la Pépinière, Paris.
Germany, Federal Republic of—Australian Embassy, Migration Office, Victoria Haus, Hohenzollernring 103, Cologne.
Greece—Australian Embassy, Migration Office, 8 Makedonon Street, Athens.
Hong Kong—Australian Government Trade Commission, Union House, Chater Road, Hong Kong.
Italy—Australian Embassy, Migration Office, Via Magenta 5, Rome.
Kenya—Australian High Commission, Silopark House, Queensway, Nairobi.
Lebanon—Australian Migration Office, Al Ghanem Building, 211 Madame Curie Street, Sana'eh, Beirut.
Malta—Australian Migration Office, Airways House, Gaiety Lane, Cnr High Street, Sliema, Valletta, Malta.
The Netherlands—Australian Embassy, Migration Office, 1 Javastraat, The Hague.
Spain—Australian Consulate-General, Calle General Sanjurjo 44, Madrid 3.
Sweden—Australian Embassy, Migration Office, Sergelstorg 12, Stockholm 40.
Switzerland—Australian Consulate-General, Migration Section, 56–58 Rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.
United Arab Republic—Australian Embassy, Migration Office, 12 Hassan Sabri Street, Zamalek, Cairo.
United States of America—Australian Consulate-General, International Building, 636 Fifth Avenue, New York 20, New York.
Australian Consulate-General, Qantas Building, 350 Post Street, Union Square, San Francisco, California.
Yugoslavia—Australian Embassy, Migration Office, Palmoticeva, 21/1 Belgrade.

CHAPTER 7

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; the Territory of Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); Nauru (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands deemed to form part of the Northern Territory.

Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 4, 5, 22, and 23 of Chapter 1. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* and the *Australian Capital Territory Statistical Summary* issued by this Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects.

Responsibility for the general administration of the Northern Territory and the Territories of Norfolk Island, Papua, New Guinea, Nauru, Cocos (Keeling) Islands, Christmas Island and Ashmore and Cartier Islands is vested with the Commonwealth Department of Territories; for the Australian Capital Territory with the Department of the Interior; and for Antarctica and Heard and McDonald Islands with the Department of External Affairs Matters excepted are defence and civil aviation, and, in the Northern Territory and the Australian Capital Territory, public health, justice and the provision of the basic physical services, which are the responsibility of the Department of Health, the Attorney-General's Department and the Department of Works respectively.

THE NORTHERN TERRITORY

General description

Area

Upon the extension of New South Wales westward to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911. The total area is 520,280 square miles.

Legislation and administration

On 1 January 1911 the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, page 940. For particulars of the administration up to the *Northern Territory* (*Administration*) *Act* 1931, by which it was, for the second time, placed in the hands of an Administrator, *see* Year Book No. 38 and earlier issues.

The *Northern Territory* (*Administration*) *Act* 1910–1966 provides for the constitution of a Legislative Council consisting of six official members, three nominated non-official members and eight elected members. A president is elected from among the non-official and elected members. The Council makes ordinances for the Territory, which must be submitted to the Administrator. The Administrator is obliged to reserve Ordinances relating to certain matters, including Crown lands and Aboriginal employment, for the Governor-General's pleasure, but in other cases has a discretionary power either to assent, withhold assent or to return the Ordinance to the Legislative Council with recommended amendments. The Governor-General also has power in respect of a reserved ordinance to recommend to the Administrator any amendments to the laws of the Territory he considers to be desirable arising out of his consideration of the Ordinance. Money votes may be proposed in the Council only on recommendation by message of the Administrator. The Territory elects a member to the House of Representatives, who has the right to take part in debates, but may vote only on matters that relate solely to the Northern Territory.

Physiography

The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland the country generally is devoid of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

Climate, fauna and flora

There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly all the rainfall occurs in the summer months. Further particulars appear in Year Book No. 6, page 1116.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of fresh-water fish and littoral *Mollusca*. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. A species of the ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been reduced by indiscriminate shooting. Buffalo shooting is, however, now controlled by Ordinance.

The vegetation is north Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. In the coastal regions tropical vegetation grows luxuriantly to the water's edge. In the north, cypress pine, bloodwood and paper-bark timbers are now cut and milled for local building purposes. Cypress pine is resistant to termites. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being: *Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodenoviaceae*, *Leguminosae*, *Utricaceae*.

Population

See also the chapters Population and Vital Statistics.

At the census of 30 June 1966 the population of the Territory, excluding full-blood Aborigines, was 21,319 males, 15,847 females, 37,166 persons. Corresponding figures at the census of 30 June 1961 were 16,206, 10,889 and 27,095 respectively. The European population of the Territory increased slowly from 670 at the census of 1881 to 3,767 in 1918. By 1921 it had decreased to 2,458, and in 1933 was still only 3,306. It had risen to 9,116 at the census of 1947, to 14,031 at the census of 1954 and to 23,599 at the census of 1961.

For particulars relating to the Aboriginal population *see* the chapter Population. All Aborigines, by virtue of the *Nationality and Citizenship Act* 1948–1966, are British subjects and Australian citizens. Northern Territory Aborigines are equal at law with all other Northern Territory residents, although a few special privileges exclusive to Aborigines have been retained. The *Social Welfare Ordinance* 1964 which repealed the *Welfare Ordinance* 1953–1963 provides for assistance without control for any person who is socially or economically in need of assistance. Reserves for Aborigines comprise an area of 94,025 square miles.

Production

See also the chapters dealing with particular subjects.

Land tenure

Three-sevenths of the land in the Territory is reserved or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described in Year Book No. 48, pages 111–12. The following changes should, however, be noted.

Leases to Mission Organisations are now granted under the *Special Purposes Leases Ordinance* 1953–1965 for fixed terms or in perpetuity.

Miscellaneous Leases are now granted in perpetuity for purposes such as a market garden, plantation, orchard, vineyard, poultry farm, piggery, or the like.

Darwin Town Area Leases are granted in perpetuity for business or residential purposes, or both, in the Darwin Town Area.

The chapter Rural Industry, of this issue contains statistical information concerning areas occupied under various forms of tenture.

Agriculture

Up to the present, agriculture has made little progress in the Territory, although rice, peanuts, tobacco, grain sorghum, bananas, pineapples, citrus fruits, cashew nuts, mangoes, papaws, vegetables, fodder plants, and improved pastures can be grown in certain areas. At the present time commercial agricultural production is practically confined to vegetables and small-scale fruit production (mainly pineapple, citrus and bananas) for local consumption. A small industry is being developed in Townsville lucerne seed production and in the production of hay.

Information concerning scientific surveys (commenced in 1946) conducted by the Commonwealth Scientific and Industrial Research Organization to determine more accurately the potentialities of the Northern Territory and the resulting establishment of an agricultural research station at Katherine and experimental farms at Katherine and Berrimah (near Darwin) is given in Year Book No. 51, page 101, and in earlier issues. Information is given also on the establishment of rice research stations and investigational work carried out and on subsequent rice crop commercial scale operations. The appointment by the Minister for Territories in 1959 of an expert committee to carry out investigations relative to agricultural settlement in the Territory and subsequent developments are also referred to.

NORTHERN TERRITORY: AREA AND PRODUCTION OF CROPS 1961-62 TO 1965-66

Crop		1961–62	1962–63	1963–64	1964–65	1965–66
AREA(*a*) (acres)						
Fruit—Bananas		37	35	43	28	20
Pineapples		15	11	23	19	12
Other		84	90	83	83	78
Total, fruit		*136*	*136*	*149*	*130*	*110*
Peanuts		307	(*b*)	(*b*)	(*b*)	16
Sorghum for grain		(*b*)	(*b*)	527	1,269	1,093
Vegetables for human consumption		125	149	133	150	144
Other crops(*c*)		1,115	1,465	1,680	2,687	2,699
Grand total(*a*)		**1,683**	**1,750**	**2,489**	**4,236**	**4,062**
PRODUCTION						
Fruit—Bananas	bushels	1,252	1,909	2,174	2,448	1,985
Pineapples	,,	1,163	778	943	1,142	990
Peanuts	cwt	1,343	(*d*)	(*d*)	(*d*)	76
Sorghum (grain)	bushels	(*d*)	(*d*)	6,210	10,693	12,018

(*a*) Excludes rice; details are not available for publication. (*b*) Not available for publication, included in Other crops. (*c*) Principally fodder crops. (*d*) Not available for publication.

Pastoral industry

The pastoral possibilities of certain parts of the Territory were recognised at an early date, and both cattle and sheep raising have been attempted. For various reasons sheep-raising has not been very successful, but the cattle industry has progressed steadily and is continuing to expand, except in the Alice Springs District, which has experienced persistent drought conditions. There is substantial potential for further expansion in the higher rainfall area of the Territory through the introduction of improved pastures and the use of superphospate.

NORTHERN TERRITORY: LIVESTOCK
JUNE 1962 TO 1966

30 June—	Horses	Cattle	Sheep	Pigs
1962 .	40,809	1,063,528	10,388	2,762
1963 .	38,191	1,086,627	9,469	1,842
1964 .	38,391	1,105,161	10,023	1,806
1965 .	35,997	1,067,327	9,099	2,182
1966 .	38,889	1,031,715	8,875	2,275

Mining

During 1965 the value of output of the mining and quarrying industry in the Territory, excluding uranium mining, particulars of which are not available for publication, was $8,308,000.

The mining of copper ores and concentrates is the most important mining activity in terms of value of output, and accounts for more than half the Territory's total recorded production. Prior to 1956, gold minerals, first mined in 1869, accounted for most of the value of output, but from 1956 onwards gold production has remained relatively constant while copper production has increased. The bulk of the copper and gold is won at Tennant Creek, where the government battery was re-opened in 1958 to encourage gold mining by smaller operators. The government also operates a battery at Mount Wells, about 100 miles south-east of Darwin, for the treatment of cassiterite (tin) and gold ores from that locality.

Plans are now being put into operation to work several large mineral deposits in the Territory, bauxite at Gove Peninsula, manganese on Groote Eylandt, and iron at Frances Creek and Mount Bundy. Lead-zinc deposits at McArthur River and the Woodcutters prospect near Rum Jungle are also being investigated (*see also* the chapter Mineral Industry).

NORTHERN TERRITORY: MINING AND QUARRYING OPERATIONS, 1962 TO 1965
(Excluding uranium mining)

	1962	1963	1964	1965
Number of mines and quarries . . .	94	65	84	67
Average number of persons employed during whole year (including working proprietors)	424	457	585	688
Salaries and wages paid(*a*)(*b*) . . $'000	1,520	1,590	2,138	2,867
Total fuel, materials, etc., used . . „	1,220	1,394	1,727	2,571
Value of additions and replacements to fixed assets(*a*) . . . . . . $'000	672	388	2,866	5,677
Value of output (at mine or quarry) . „	5,364	6,480	7,233	8,308
Value of production(*c*) . . . . „	4,144	5,086	5,506	5,736

(*a*) Excludes mines employing less than four persons. (*b*) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (*c*) Value of output less cost of power, fuel and light and other materials and stores used; depreciation and maintenance costs have not been deducted.

Natural gas was discovered in the Amadeus Basin in 1964. Combined reserves at Mereenie and Palm Valley are estimated at 1,500,000 million cubic feet. Possible ways of utilisation are being investigated. Petroleum exploration is being carried out in the Northern Territory in permit areas covering some 286,000 square miles of which over one-third is off-shore. Drilling from floating rigs may commence within the next twelve months.

Forestry

In February 1966 the Commonwealth Government approved a four-year programme of forest improvement and development to preserve existing forest areas and increase possible timber resources. The programme includes increasing the rate of planting cypress pine from 350 acres a year to 1,000 acres a year by 1969–70 and also makes provision for the employment and training of Aborigines. The programme is being carried out by the Forestry and Timber Bureau but it is planned that the operational functions will be taken over by the Northern Territory Administration as soon as practicable after June 1967. Local production of log timber, mainly cypress pine, amounted to 1,425,757 super feet in 1964–65, but this was insufficient to meet local requirements, and about 3,360,465 super feet of sawn timber was imported from the States and overseas.

Pearl fisheries

In 1884 mother-of-pearl shell was discovered in Darwin harbour. Since then the areas fished have extended to the various banks to seaward and along the Northern Territory coast. Because of competition from plastic materials pearling has declined in recent years, but it is hoped that the commercial production of cultured pearls will succeed in replacing the old pearling industry.

NORTHERN TERRITORY: FISHING AND PEARLING(*a*), 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66
General fisheries—					
Number of boats engaged .	33	30	30	28	43
Number of men employed .	63	68	54	69	120
Landed weight of fish catch '000 lb	226	306	249	290	325
Gross value of fish . . $'000	46	38	45	55	57
Pearl-shell fisheries(*b*)—					
Number of boats engaged .	3	2	2	2	4
Number of men employed .	37	22	23	22	27
Total take of pearl-shell '000 lb	147	115	11	12	11
Gross value of pearl-shell $'000	58	40	3	2	2

(*a*) Excludes operations of Japanese pearling fleet. (*b*) Season ended January.

Secondary industries

The secondary industries that have so far been established in the Territory have been largely the service industries normally associated with a developing area, such as home building, electrical repairs, printing, motor and marine engineering, plumbing, welding, joinery, sheet metal work, and blue metal crushing. Major industrial investments by private interests in recent years include two breweries, a bitumen plant, and a factory for the manufacture of milk products, ice cream and aerated waters.

NORTHERN TERRITORY: FACTORIES, 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66 p
Number of factories(*a*) . .	130	141	139	174	184
Average number employed(*b*)—					
Males	788	878	978	1,098	1,180
Females	77	89	97	112	112
Persons employed . .	*865*	*967*	*1,075*	*1,210*	*1,292*
Salaries and wages paid(*c*)—					
Males . . . . . $'000	1,874	2,146	2,628	3,298	3,651
Females . . . . ,,	119	130	142	185	192
Total salaries and wages paid	*1,993*	*2,275*	*2,770*	*3,483*	*3,844*
Value of power, fuel, light, etc. used(*d*) . . . . $'000	558	559	735	865	850
Value of materials used(*e*) . ,,	2,417	2,876	3,204	4,550	5,445
,, ,, production(*f*) . ,,	3,981	4,493	5,118	6,654	7,032
,, ,, output(*g*) . . ,,	6,956	7,928	9,057	12,068	13,326
,, ,, land and buildings(*h*) ,,	2,873	3,304	4,586	5,668	6,122
,, ,, plant and machinery(*h*),,	3,057	6,339	6,046	6,103	7,526

(*a*) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (*b*) The aggregate of the average number of persons employed in each factory. Includes working proprietors. From 1962–63 figures represent average employment over the whole year; for 1961–62 figures are averages during period of operation. (*c*) Excludes drawings by working proprietors. (*d*) Includes water and lubricating oil. (*e*) Includes also containers, etc., tools replaced and repairs to plant. (*f*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*g*) Value of goods produced including amounts received for repair work and other work done. (*h*) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

Trade, transport and communication

Trade

No comprehensive record is kept of the trade between the States and the Territory. The following table shows the values of the principal commodities imported into and exported from the Northern Territory from or to overseas countries during the years 1961–62 to 1965–66.

NORTHERN TERRITORY: PRINCIPAL OVERSEAS IMPORTS AND EXPORTS, 1961–62 TO 1965–66
($'000)

Commodity	1961–62	1962–63	1963–64	1964–65	1965–66
IMPORTS					
Petroleum and shale spirit—					
Aviation spirit	431	184	232	143	158
Other (motor spirit)	437	279	389	339	456
Aviation turbine fuel	1,371	521	670	1,022	955
Other oil(*a*)	201	293	310	487	808
Sulphur	89	159	141	71	..
Portland cement	122	157	174	322	415
Timber (undressed hardwood)	120	97	151	214	334
Iron and steel manufactures	(*b*)	(*b*)	(*b*)	(*b*)	832
Machinery and transport equipment					922
Other articles	1,397	695	870	1,526	716
Total imports	**4,168**	**2,385**	**2,937**	**4,124**	**5,596**
EXPORTS(*c*)					
Meats	..	7	1,546	2,323	3,348
Hides and skins, raw	262	153	237	123	134
Non-ferrous base metals	..	172	..	9	173
Copper ores and concentrates	347	242	78	805	2,044
Pearls	5	30	180	170	28
Other articles	609	485	433	379	671
Total exports	**1,223**	**1,089**	**2,474**	**3,809**	**6,398**

(*a*) Includes kerosene, gas oil, diesel oil, residual oil, etc. (*b*) Included in other articles. (*c*) Includes domestic exports and re-exports.

Shipping

Shipping services to Darwin are provided from the eastern States by ships of the Australian National Line and from Western Australia by the Western Australian State Shipping Service. Oil tankers carrying supplies of aircraft fuel and other petroleum products, overseas cargo ships and other miscellaneous vessels also visit Darwin. During 1965–66 fifteen cargo and passenger ships from the eastern States and 54 from Western Australia visited Darwin. Fifteen tankers, 37 overseas cargo ships and 101 other vessels also visited the port. Approximately 240,000 tons of cargo were discharged and 30,000 tons loaded at Darwin during the year. A vessel operated from Brisbane serves settlements on the Gulf of Carpentaria, and some mission-owned boats carry cargo from Darwin to mission stations and government settlements along the coast.

Air services

At 30 June 1966 there were nine government aerodromes and 126 licensed aerodromes in the Territory. The overseas passenger services using the Darwin international airport are Lufthansa (Sydney to Frankfurt); Qantas/B.O.A.C. (Sydney to London); B.O.A.C. (Sydney to Hong Kong); Union de Transports Aeriens (Paris to Los Angeles via Noumea); and T.A.A. on behalf of Transportes Aeros de Timor (Darwin to Baucau). Regular inland services to Darwin, with, in some cases, intermediate stops at Territory centres, are operated by Trans-Australia Airlines and

Ansett-A.N.A. (from Adelaide, Melbourne, Sydney and Brisbane), and MacRobertson-Miller Airways Ltd (from Perth and Derby). MacRobertson-Miller Airways Ltd and Connellan Airways Ltd operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

Railways

The Commonwealth Railways Commissioner operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 822 miles, of which about 200 are in the Northern Territory. The line is standard gauge from Port Augusta to Maree, a distance of 217 miles, and 3 ft 6 in from Maree to Alice Springs. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft 6 in gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and 6 miles north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

Roads

The Stuart Highway, 954 miles long, connects Alice Springs with Darwin and runs via Larrimah and Tennant Creek. The Barkly Highway, 403 miles long, connects Mount Isa (Queensland) with Tennant Creek and joins the Stuart Highway some 16 miles north of Tennant Creek. These highways are used for carrying various freights, including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. With the further development of the pastoral and mining industries in the Territory, road trains are now being used on both highways for the export of cattle and ore. Both roads have good water bores and communications. There are now approximately 11,600 miles of roads in the Territory of which 1,500 miles are sealed.

Work on a programme for reconstruction and development of beef cattle roads was commenced in 1961–62. To date $10.6 million has been authorised for this work, and actual expenditure to 30 June 1966 was $8.1 million. The transport of cattle by road is expected to increase the number, quality and value of cattle turned off.

Posts, telegraph, telephones and wireless

Postal communication is maintained by road, rail and air transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering a length of 2,230 miles, runs from Adelaide to Darwin, and links Darwin in telegraphic communication with other parts of the world. Long-distance telephone communication is established between Darwin and the capital cities of Australia, and overseas telephone communication through Sydney or Perth is also available.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek and Katherine, and there is a commercial station at Darwin. The majority of homesteads on pastoral leases are equipped with radio transceivers operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia), Broken Hill (New South Wales), and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

Education

See also the chapter Education, Cultural Activities and Research.

European schools

Schools for European and part-European children in the Territory are conducted for the Commonwealth, on an agreed basis of reimbursement, by the South Australian Department of Education, which is represented in Darwin by an Assistant Supervisor of Education, Northern Territory Schools. In August 1966 there were twenty-three government schools in the Territory, with 5,989 pupils, and four non-government schools, with 898 pupils, providing instruction according to the South Australian curriculum. High schools have been established with classes to Leaving Certificate level at Alice Springs and Leaving Honours level at Darwin.

All children who live more than ten miles from an established school receive an allowance of up to $320 ($200 plus $120 on a graduated scale according to family income) per annum plus fare concessions if they board away from home in order to attend school. Twelve Intermediate exhibitions or ten per cent of the number of candidates, whichever is the greater, are available annually, and carry benefits of $10. There are also book allowances ranging from $16 to $20 per annum for secondary students. Approximately 300 children receive correspondence education under the South Australian Correspondence School system. The radio session 'School of the Air' supplements normal correspondence instruction for certain children in isolated areas.

Fourteen pre-school centres are in operation in the Territory, the staff of all except one being officers of the Northern Territory Administration. A number of scholarships are offered each year for Territory girls to qualify as pre-school teachers.

Special Aborigines schools

The social, cultural and educational background of the Aborigines has made necessary the establishment of special schools for them. This is regarded as an interim measure only, and policy is that children are transferred into general community schools as they are judged capable of handling the curriculum. From the beginning of the 1956 school year control of these schools passed from the Commonwealth Office of Education to the Welfare Branch of the Administration. Thirty-three schools had been established up to the middle of the year 1966. A special syllabus and series of readers have been prepared for use in these schools. Free mid-day meals, milk, and school clothes are supplied to the pupils. In addition to the thirty-three Administration schools, twelve schools for Aboriginal children were conducted by missions with the aid of Government subsidies. Also, five schools aided by Government subsidies had been established on pastoral properties, and the establishment of others along similar lines is planned. Five pre-school centres for Aboriginal children are operated by the Administration and four others are organised by the missions.

Theoretical training of apprentices

The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

Aboriginal welfare

The Commonwealth and State Governments have adopted a common policy of assimilation which seeks that all persons of Aboriginal descent will choose to attain a similar manner and standard of living to that of other Australians and live as members of a single Australian community enjoying the same rights and privileges, accepting the same responsibilities and influenced by the same hopes and loyalties as other Australians. Since the commencement of the *Social Welfare Ordinance* 1964 in September 1964, Aborigines in the Northern Territory have been equal at law with all other residents, although some special benefits have been retained for them. An intensive welfare programme to prepare Aborigines for the demands of modern living is being carried out, and fourteen Government settlements and thirteen mission stations have been established, where Aborigines are encouraged to adopt a settled way of life, and health services, particularly child welfare services, education, housing, vocational training, and employment are provided. Aborigines are also encouraged to take part in the social activities of the community.

Finance

Details of receipts and expenditure of the Territory for the years 1961–62 to 1965–66 are shown in the table following. In this table the receipts and expenditure of the Northern Territory have been classified into a National Accounts form. The table covers transactions relating to the Northern Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Northern Territory Government Settlements Canteens, Northern Territory Housing Commission, Northern Territory Housing Loans, and Northern Territory Transport. Details of the financial transactions of the Darwin City Council are also incorporated in the table. Revenue derived by the Commonwealth from income taxes, customs duties, etc., levied in the Northern Territory and expenditure by the Commonwealth in the Northern Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

NORTHERN TERRITORY: RECEIPTS AND EXPENDITURE
1961–62 TO 1965–66
($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Taxation—					
Stamp duties	50	76	42	42	53
Motor registration	151	163	188	213	237
Other	123	103	362	435	447
Interest, rent, etc.	664	590	694	758	869
Public enterprises income	162	114	452	426	1,011
Net sale of local and semi-governmental securities	252	326	418	392	81
Other receipts—					
Net charge to Commonwealth budget	23,946	27,926	29,426	32,538	38,986
Other(*a*)	−8	22	42	—36	214
Total receipts	**25,340**	**29,320**	**31,624**	**34,768**	**41,898**
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	260	272	412	460	556
Education	854	920	1,052	1,320	1,608
Public health and welfare	4,630	5,300	5,994	6,802	7,517
Other	5,654	6,548	7,574	8,406	10,624
Capital expenditure on new assets and stocks—					
Roads	1,870	3,714	3,720	2,950	4,356
Housing	1,860	2,166	2,130	3,850	5,371
Other	9,392	9,632	9,680	10,016	11,188
Net purchase of existing assets(*b*)	12	−48	−122	—114	—313
Cash benefits	104	104	148	174	193
Subsidies	182	192	264	260	361
Interest paid	152	70	80	112	65
Net advances—					
Housing	264	350	546	110	70
Other	106	100	146	422	302
Total expenditure	**25,340**	**29,320**	**31,624**	**34,768**	**41,898**

(*a*) Includes movements in cash, investments, etc. (*b*) Minus sign (−) denotes excess of receipts (from sales) over expenditure on, or purchases of, existing assets, including housing.

THE AUSTRALIAN CAPITAL TERRITORY

General description

The Commonwealth Constitution provides that the Seat of Government of the Commonwealth shall be in the state of New South Wales but distant not less than 100 miles from Sydney. After a number of alternative sites were considered, an area of 911 square miles lying approximately 200 miles south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 28 square miles at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility fof administering the Australian Capital Territory lies with the Department of the Interior, whose functions include housing, education, police, and municipal services. Public health, justice and the provision of basic physical services, including water supply, sewerage and roads, are the responsibility of the Departments of Health, Attorney-General's, and Works. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

The Australian Capital Territory Advisory Council was established in 1930. It has eight elected members and a representative from each of the Departments of Interior, Works, and Health, and the National Capital Development Commission. The Council advises the Minister for the Interior on matters affecting the Australian Capital Territory. Ordinances are submitted in draft form to the Council for advice and comment before being implemented.

From 1911 until 1921 the population of the Australian Capital Territory remained almost static at about 2,000 persons. In 1922 it commenced to rise and by 1927 was around 6,000. The following year, with the transfer of departments from Melbourne, the population passed 8,000, and at the outbreak of the 1939–45 War had reached just under 13,000 persons. During the war growth was again slow, and at the census of 30 June 1947 the population was 16,905 persons. In the post-war period the population increased more rapidly and at the census of 30 June 1954 was 30,315 persons. With further transfers of departments from Melbourne it reached 58,828 persons (including 527 in Jervis Bay) at the census of 30 June 1961. At 30 June 1966 the population was 95,913, made up of 93,197 in Canberra City and 2,716 in rural areas (including Jervis Bay). *See also* the chapters Population and Vital Statistics.

National Capital Development Commission

The *National Capital Development Commission Act* 1957–1960 provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The year 1965–66 was the eighth year of the Commission's operations. Construction work was carried out by means of agency arrangements with the Department of Works and private consultants. Details of expenditure by the Commission in each year from 1961–62 to 1965–66 are included in the table on page 130. Total expenditure in 1965–66 was $35.1 million, comprising national works, $1.8m; Commonwealth offices, $5.3m; Territory works, $18.4m; city works, $1.7m; land development, $6.4m; other $1.5m.

The following major works were completed during 1966 by the Commission and its agents: Deakin High School; Watson High School, Stage II; Narrabundah High School extensions; North Curtin Primary School; Lyons Primary School; Chifley Primary School; Garran Primary School; Hackett Infants School and South Curtin Infants School; Administration and Library Building, Canberra Technical College; A.C.T. Police Head-quarters; Fyshwick sewage treatment works; Weston Creek sewage treatment works; Corin Dam access road and construction camp; duplication of Canberra Avenue to Fyshwick; construction of Carruthers Street-Yarra Glen interchange and Hughes-Curtin link; roads and parking areas at Curtin shopping centre; Botanic Gardens Herbarium; and Deakin Swimming Pool.

Works under construction at the beginning of 1967 included the following projects: National Library; Anzac Park West Office Building; The Treasury Building; Forestry Research Institute; Woden Valley High School; Pearce Primary School; Torrens Primary School; Telopea Park High School extensions; Corin Dam; Bendora gravity main; water treatment works, Mount Stromlo; Belconnen trunk sewer; Yarra Glen (Deakin-Curtin); Hindmarsh Drive; Paddy's River Road; Commonwealth Gardens.

Works and services

Housing

In 1911 there were only 448 dwellings in the Australian Capital Territory, but by June 1965 the number had risen to almost 21,000. The following are the numbers recorded at successive censuses or surveys over the period: 1911, 448; 1921, 555; 1933, 2,098; 1947, 3,667; 1954, 7,444; 1961, 14,734; 1963, 16,689; 1965, 20,429. Figures for the last two years relate to occupied dwellings in Canberra only. Until the period following the 1939–45 War most houses and flats were built and rented by the Department of the Interior. More recently, particularly over the past four or five years, an increasing number of houses and flats have been built by private enterprise. Between 1961 and 1963 the proportion of privately owned homes and flats rose from 29 per cent to 38 per cent, and by 1965 it was 57 per cent. Public authorities will continue to provide the bulk of all rented accommodation in the foreseeable future. In June 1966, of the total of 23,091 occupied dwellings in Canberra, 9,132 were owned by the Commonwealth. To provide for additional home development six new suburbs have been opened in the Yarralumla Creek Valley, south-west of the former city area. In these suburbs, Hughes, Curtin, Lyons, Garran, Chifley, and Mawson, 3,150 homes were occupied by June 1966. In all parts of the Territory 2,143 houses and 285 flats were completed during 1966.

Municipal services

Canberra has been developed as a garden city. More than three million trees and many acres of lawns have been planted since 1927. The development of new areas of parkland and the maintenance of existing tree and lawn areas is the responsibility of the Parks and Gardens Section of the Department of the Interior. Municipal services are also provided by the Department of the Interior.

At 30 June 1966, 22,116 meters were connected to the city water supply, drawn through nine service reservoirs from two storages on the Cotter River with a total capacity of nearly 3,500 million gallons. A third storage dam site is currently being developed. In 1965–66 some 4,804 million gallons of water were consumed in Canberra and in addition the system supplied 356 million gallons to Queanbeyan in New South Wales. Treatment works at Weston Creek dispose of Canberra sewage. At 30 June 1966, 345 miles of sewers, 6½ miles of rising sewerage mains and 361 miles of storm water drains were laid.

Department of Works

Apart from the work it carries out for the National Capital Development Commission, the Department of Works acts as design and supervision agent for other Commonwealth departments and instrumentalities. Total expenditure during 1965–66 on all operations amounted to $11.2 million ($10 8 million in 1964–65), comprising: building works—housing, $130,811; other building, $5,485,771; engineering works, $945,672; repairs and maintenance—building, $2,218,681; engineering, $2,033,646; purchase of plant, $345,809. Major works completed during 1965–66 included: Cadets' Block No. 3 at the Royal Military College, Duntroon and the Apollo Tracking Station at Honeysuckle Creek together with a back-up wing at Tidbinbilla. The latter two projects are part of the Manned Space-flight Network. New major works under construction at the close of 1965–66 included Mawson and Belconnen telephone exchange buildings.

Production

See also the chapters dealing with particular subjects.

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and the chapter Rural Industry of this issue contains statistical information on the subject. (*See also* § 1. Canberra: Fifty Years of Development, page 123 of Year Book No. 49.)

Under the *Seat of Government* (*Administration*) *Act* 1910 Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. Leases of land in the city area are granted under the *City Area Leases Ordinance* 1936–1961, and leases of other lands under the *Leases Ordinance* 1918–1958. Land is also leased for various purposes in the city area under the *Church Lands Leases Ordinance* 1924–1932 and the *Leases* (*Special Purposes*) *Ordinance* 1925–1943, while one lease under the *Church of England Lands Ordinance* 1926 has been granted for church purposes. As considerable portions of the Territory lands are not immediately required in connection with the establishment of the city, large areas have been leased for agricultural or grazing purposes.

The Royal Australian Naval College is situated in the area of about 28 square miles at Jervis Bay acquired from New South Wales for possible use as a port in connection with the Territory. At the southern end of the Territory there are a limited number of holiday leases. Apart from some experimental planting and soil conservation activities, the area is being maintained for possible Commonwealth requirements.

Forestry

Forestry operations in the Territory were begun on Mt Stromlo in 1915. Plantings up to 1925 were chiefly decorative, but since then a much wider programme has been undertaken. In 1926 a comprehensive review was made of the Territory's potential for forest development and a programme for the development of commercial forests was approved. Most of the better native forest has since been placed under management and following survey and assessment work, forestry operations, including fire-control, have been extended to 100,000 acres of eucalypt forest in the lower Cotter Catchment Area.

Afforestation work has also been undertaken and softwood plantations (mainly *Pinus radiata*) have been established at Uriarra, Stromlo-Green Hills, Pierce's Creek, Kowen, Tidbinbilla, Jervis Bay and Boboyan. Experimental plots have been established at Jervis Bay and in the Brindabella Ranges, and soil conservation plantings made at various locations throughout the Territory. The total area of softwood plantations within the Australian Capital Territory at 30 June 966 was 28,270 acres of which 26,056 acres were *Pinus radiata*, the balance consisting chiefly of *Pinus ponderosa* and *Pinus nigra*, plus 548 acres at Jervis Bay, mainly *Pinus radiata* and *Pinus elliottii*.

Continued thinning operations have improved all Australian Capital Territory forests so that they now yield a wide variety of products. Poles, board-logs and case timber form the bulk of production, but increasing amounts of fencing timber and pulpwood are now being produced. The yearly output from pine plantations has increased from 2,500 cubic feet in 1930–31 to 1.5 million cubic feet in 1965–66, valued at $404,000 delivered at purchasing mills in Canberra. Hardwood log production from Jervis Bay forests during 1965–66 was 68,000 cubic feet valued at approximately $22,000 at the purchasers' mill. Only small quantities of hardwood remain unexploited.

Up to 30 June 1966 a total of 20.3 million cubic feet of pine logs had been cut from plantations, while hardwood production from the Australian Capital Territory, including Jervis Bay, totalled 4.2 million cubic feet.

Agricultural, pastoral and secondary industries

During 1965–66 the production of the more important items of the agricultural and pastoral industry was: wheat 27,855 bushels; wool 1,873,000 lb.; whole milk 1,026,000 gallons; meat (carcass weight, fresh), 3,740 tons. The numbers of livestock depastured at 31 March 1966 were: horses 622; cattle 13,361; sheep 258,179.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory.

AUSTRALIAN CAPITAL TERRITORY: FACTORIES, 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories(*a*)		140	164	170	187	220
Average number employed(*b*)—						
Males		1,838	2,052	2,236	2,634	2,933
Females		394	404	458	593	612
Persons employed		*2,232*	*2,456*	*2,694*	*3,227*	*3,545*
Salaries and wages paid(*c*)—						
Males	$'000	4,126	4,776	5,666	7,854	8,929
Females	,,	502	598	608	848	1,061
Total salaries and wages paid	,,	*4,628*	*5,374*	*6,274*	*8,702*	*9,990*
Value of power, fuel, etc. used(*d*)	,,	274	326	502	644	763
,, ,, materials used(*e*)	,,	5,374	6,922	8,428	11,440	13,450
,, ,, production(*f*)	,,	7,536	8,368	11,096	14,060	17,633
,, ,, output(*g*)	,,	13,184	15,616	20,026	26,145	31,847
,, ,, land and buildings(*h*)	,,	5,670	4,556	11,668	20,583	22,067
,, ,, plant and machinery(*h*)	,,	3,214	4,694	5,104	9,682	10,156

(*a*) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (*b*) The aggregate of the average number of persons employed in each factory. Includes working proprietors. From 1962–63 figures represent average employment over the whole year; for earlier years figures are averages during period of operation. (*c*) Excludes drawings by working proprietors. (*d*) Includes water and lubricating oil. (*e*) Includes also containers, etc., tools replaced and repairs to plant. (*f*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*g*) Value of goods produced including amounts received for repair work and other work done. (*h*) Depreciated or book values at end of year including estimated value of rented premises and machinery.

Transport and communication

Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 4¾ miles long. This line was opened for goods traffic on 25 May 1914 and for passenger traffic on 15 October 1923. Direct or linking services operate between Canberra and Sydney and Canberra and Melbourne. Two airlines provide several services daily each way on the Sydney-Canberra-Melbourne route. Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia. The total length of roads in the Territory at 30 June 1966 was: bitumen and concrete, 440 miles; gravel, 231 miles; other formed roads, 90 miles; total, 761 miles. There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station, and two television stations, ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station.

Social

See also the chapter Education, Cultural Activities and Research.

Education

The *Education Ordinance* 1937–1966 provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of the Interior is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides the teaching staff. It is reimbursed for expenses incurred.

At 31 December 1966 there were eight public secondary schools in Canberra providing courses proceeding to the Higher School Certificate. Twenty-four schools provided courses for children in infants and primary classes, including one in the Jervis Bay area and three in rural districts. There were also: a school for mentally handicapped children; a school for physically handicapped children, located at Canberra Community Hospital; a school for deaf children, located at the Ainslie Public School; a therapy clinic for children with speech defects; and a clinic for educational guidance. A further two primary schools were scheduled to commence at the beginning of the 1967 school year.

At 31 December 1966 there were seventeen private schools in Canberra. Of these, St Edmund's Christian Brothers' College, the Catholic Girls' High Schools at Braddon and at Griffith, the Daramalan College, the Canberra Grammar School (Boys), and the Canberra Church of England Girls' Grammar School provide courses leading to the Higher School Certificate.

Thirty-four pre-school centres, including two occasional care centres and a mobile unit which visits outlying areas, provide pre-school facilities for approximately 2,500 children between the ages of three and five years.

The Canberra Technical College, which follows generally the curriculum set by the New South Wales Department of Technical Education, provides trade, post-trade, certificate, and some hobby courses. In 1966 the Technical College provided instruction in ninety-nine courses in twenty schools. Student enrolments were 4,879.

An area of about 250 acres has been set aside at Acton for the Australian National University. Provision has been made for the University to establish such research schools as may be thought desirable, including a School of Medical Research and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Provision for undergraduate studies and some post-graduate study is made by the School of General Studies.

Health

The Canberra Community Hospital serves the population of Canberra and surrounding districts. At 30 June 1966 it had 481 beds, an honorary medical staff of 206, 12 salaried medical staff, and a nursing staff of 485. Extensions are being made to the hospital to enable it to cope better with the needs of Canberra's growing population. For further information *see* the chapter Public Health.

Justice

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. There is an Australian Capital Territory Police Force, which at the end of 1966 numbered 205, including 4 policewomen. Of the total, 91 were engaged on general duties, the traffic branch comprised 45, including the specialist water police and accident investigation squads, 28 were engaged in criminal investigation, 15 on prosecuting, 2 in caring for the Police Boys Club, 1 in the Jervis Bay area, and there were 23 recruits on full-time training. *See also* the chapter Public Justice.

Finance

In the following table the receipts and expenditure of the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions relating to the Australian Capital Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Electricity Supply (to 1962–63), Australian Capital Territory Forestry, Australian Capital Territory Housing, and Australian Capital Territory Transport. In addition, details of the financial transactions of the following semi-governmental authorities are also covered: Australian Capital Territory Electricity Authority (from 1963–64), Commonwealth Brickworks, and National Capital Development Commission. Revenue derived by the Commonwealth from income taxes, sales tax, etc. levied in the Australian Capital Territory and expenditure by the Commonwealth in the Australian Capital Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Taxation—					
Motor registration	371	408	474	540	604
Liquor tax	104	111	129	146	170
Other	217	239	295	698	561
Interest, rent, etc.	624	716	868	1,256	1,631
Public enterprises income	3,504	3,514	4,718	5,714	5,761
Net sale of semi-governmental securities	482	934	768	608	595
Other receipts—					
Net charge to Commonwealth budget	30,140	33,946	37,342	40,008	45,787
Other(*a*)	140	−82	−660	−514	19
Total receipts	**35,582**	**39,786**	**43,934**	**48,456**	**55,128**
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	190	366	422	528	697
Education	2,138	2,582	2,972	3,950	4,352
Public health and welfare	1,392	1,600	1,746	2,310	2,893
Other	3,934	3,366	4,566	5,934	5,854
Capital expenditure on new assets and stocks—					
Education	3,084	3,350	3,712	3,956	3,270
Cultural and recreational facilities	2,206	4,112	2,588	2,984	2,636
Public health and welfare	718	1,608	2,148	2,584	1,866
Water supply and sewerage	1,348	1,582	920	2,822	4,254
Roads and bridges	6,060	5,932	5,388	6,450	9,347
Power, fuel and light	964	1,084	1,256	1,346	1,585
Housing	6,956	7,484	6,602	7,724	7,454
Other	5,192	6,266	12,564	10,572	12,790
Net purchase of existing assets(*b*)	−5,744	−7,902	−11,714	−17,340	−12,326
Cash benefits	30	32	38	50	132
Interest paid	162	140	212	186	250
Net advances for housing	6,952	8,184	10,514	14,400	10,074
Total expenditure	**35,582**	**39,786**	**43,934**	**48,456**	**55,128**

(*a*) Includes movements in cash, investments, etc. (*b*) Minus sign (–) denotes excess of receipts (from sales) over expenditures on, or purchases of, existing assets, including housing.

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° S. longtitude 168° E. approximately. Its total area is approximately 14 square miles, the island being about 5 miles long and 3 miles wide. It is 1,035 miles from Sydney and 660 miles from Auckland. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 45° and 81° F. with a mean of 68° F. The average annual rainfall is 56 inches.

After serving as a penal station from 1788 to 1813 and from 1825 to 1855 Norfolk Island in 1856 became the home of the remaining descendants of the *Bounty* mutineers. At the Census of 30 June 1966 the population was 1,152, consisting of 566 males and 586 females.

Administration

In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, it was accepted by the Commonwealth Parliament as a territory of Australia. It is controlled by the Minister for Territories through an Administrator. The Norfolk Island Council is established pursuant to the *Norfolk Island Act* 1957–1963 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960–1964. The Council may consider and tender advice to the Administrator on any matter affecting the peace, order and good government of Norfolk Island, and must be consulted on certain legislative and financial matters. The Council comprises the Administrator as *ex officio* chairman and voting member and eight members elected biennially.

Economic activity

The major economic activities of the island are the tourist trade, primary production and Government instrumentalities.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and production of bean seed, formerly the major export, has declined rapidly since 1962–63.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. The quota of 150 humpback whales in 1956, 120 in 1957 and in 1958, 150 in 1959, and 170 in 1960 and in 1961, was caught and processed at the station. Owing to a marked scarcity of whales, however, only four were caught in 1962, and the station has been closed down.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

Tourists. The unique history and unusual beauty of the island have always attracted a number of tourists. Before the 1939–45 War the only means of transport to the island was by ship, but the building of the aerodrome in 1943 made the island far more accessible for tourists, and the number of tourists has increased steadily during recent years. There are at present three licensed residential hotels and five guest houses; additional accommodation is being planned.

Government instrumentalities. A large proportion of the population is employed by Commonwealth Government instrumentalities, namely: Department of Civil Aviation, Norfolk Island Administration, and Department of the Interior (Meteorological Branch). The bulk of the finance for the operation of these instrumentalities is supplied by the Commonwealth Government and this greatly increases the income of the island.

Trade, transport and communication

Imports to Norfolk Island since the 1939–45 War have risen from $65,000 in 1945–46 to $2,142,000 in 1965–66. In 1965–66 the major proportion ($1,243,000 or 58 per cent) came from Australia, while New Zealand and Pacific Islands supplied $148,000 or 6 9 per cent. Exports rose from $18,500 in 1945–46 to $420,000 in 1960–61, but had declined to $308,000 by 1965–66, after whaling had ceased in 1962–63. Exports to Australia, the principal market, amounted to $205,000 in 1965–66, while exports to New Zealand and to Pacific Islands amounted to $100,000. No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are the produce or manufacture of Norfolk Island, shipped direct to Australia, and not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately six-week intervals from Sydney via Norfolk Island to the New Hebrides, Solomon Islands and other island groups and thence back to Sydney, while other vessels plying between Sydney and Noumea call at Norfolk Island about every three weeks. Shipping between the island and New Zealand is infrequent.

A twice-weekly passenger and air freight service between Sydney and Norfolk Island, maintained by Qantas Empire Airways Ltd, extends to New Zealand under charter to Air New Zealand Ltd.

There are approximately fifty miles of usable road on the island. As a substantial section of the population possesses private motor cars, and taxi-cab and bus services are available, transport is almost exclusively by motor vehicle.

A limited telephone service is operated during business hours with 24-hour connections to emergency services. The Overseas Telecommunications Commission provides a radio telegram service to Sydney.

Education

Education is free and compulsory up to the age of fifteen years. The school, which is conducted by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from kindergarten to the School Certificate examination. The teachers are provided by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30 June 1966 was 228.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of this Court is exercised by one judge sitting in Court or, to the extent and in the cases provided by or under ordinance, sitting in Chambers. The jurisdiction of the Court of Petty Sessions is exercised by a Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal items of revenue and expenditure for the five years 1961–62 to 1965–66 were as follows.

NORFOLK ISLAND: REVENUE AND EXPENDITURE, 1961-62 TO 1965-66
($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
REVENUE					
Commonwealth subsidy	64	64	67	67	66
Customs duties	31	36	45	55	85
Sale of liquor	22	26	30	34	41
Post office	77	48	55	55	174
All other	24	23	33	33	41
Total revenue	**217**	**197**	**232**	**245**	**406**
EXPENDITURE					
Administrative	43	42	46	55	72
Miscellaneous services	24	28	20	21	22
Social expenditure	44	44	50	68	70
Repairs and maintenance	18	16	17	20	27
Capital works and services	42	46	48	55	57
Postal services	15	15	26	16	33
Other business undertakings	1	6	12	6	9
Total expenditure	**186**	**199**	**219**	**241**	**289**

PAPUA AND NEW GUINEA

The information under this heading is applicable to both the Territory of Papua and the Trust Territory of New Guinea. For details of the respective Territories *see* pages 143 (Papua) and 149 (New Guinea) and following pages.

Administration

The *Papua-New Guinea Provisional Administration Act* 1945–1946, which provided for the transfer back of control from the military authorities to civil authorities after the 1939–45 War, was repealed by the *Papua and New Guinea Act* 1949, which came into force on 1 July 1949.

The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, a Legislative Council and an Executive Council, one Supreme Court, and one Public Service.

For an outline of the development of the Legislative and Executive (later Administrator's) Councils between 1949 and 1963, *see* Year Book No. 51, page 117.

In May 1963 the Commonwealth Government passed an amendment to the Papua and New Guinea Act, making provision for a House of Assembly of 64 members to replace the Legislative Council. The House now consists of 10 official members appointed by the Governor-General on the advice of the Administrator, 44 members elected by the people of the Territory on a common roll in 44 open electorates, and 10 non-indigenous persons elected on a common roll in 10 special electorates comprising one or more open electorates. The first elections for the House of Assembly were held in February-March 1964, and the inaugural meeting of the new House convened on 8 June 1964.

The 1963 Act also increased the membership of the Administrator's Council from 7 to 11, seven of whom must be elected members of the House of Assembly.

In October 1966 the Commonwealth Parliament passed a further amendment to the Papua and New Guinea Act, providing for an increase in the membership of the House of Assembly to 94. After the elections due to be held early in 1968 the House will comprise 69 members representing open electorates, 15 from regional electorates and 10 official members.

Local government was introduced in 1949 by the Native Village Councils Ordinance which was replaced by the *Local Government Ordinance* 1963. The Administrator may establish by proclamation local government councils with authority in defined areas. Provision is also made for the establishment of multi-racial local councils.

Judiciary

The courts which exercise jurisdiction within the Territory are: the Supreme Court of the Territory of Papua and New Guinea, District Courts (Papua and New Guinea), Local Courts and Children's Courts (Papua and New Guinea), and Warden's Courts.

The Supreme Court is the highest judicial authority in the Territory and has unlimited criminal and civil jurisdiction. District Courts have criminal jurisdiction over the less serious offences which are punishable on summary conviction, but have no jurisdiction to try treason crimes, misdemeanours and other indictable offences. They also exercise a limited civil jurisdiction. The Local Courts exercise a substantially similar jurisdiction but at a more subordinate level. The Administrator has power to establish, in respect of each gold-field or mineral field, warden's courts with jurisdiction over civil cases respecting mining or mining lands held under the *Mining Ordinance* 1937–1966 and offences against the mining laws of the Territory.

In addition, there is the Land Titles Commission set up under the *Land Titles Commission Ordinance* 1962–1966 to inquire into and determine rights in land, particularly native land. The Commission has the particular function under the *New Guinea Land Titles Restoration Ordinance* 1951–1966 to inquire into and determine claims to interest in land where the official records have been lost or destroyed as a result of the Japanese invasion of New Guinea. For the purposes of the latter Ordinance the jurisdiction of the Commission is exercised by the Chief Commissioner or a Commissioner appointed under the *Land Titles Commission Ordinance* who is a qualified legal practitioner.

Agriculture and animal industry

Soils

Although a large part of Papua and New Guinea is covered by skeletal soils unsuitable for agriculture, there are extensive areas in all districts where fertile soils occur suitable for growing a wide range of crops. Most of the agriculture of the Territory up to the present has been on soils on the coastal plains, which, apart from the swamp soils, consist mainly of alluvium and podsolised alluvium. So far these have been mostly under coconut plantations, although other crops such as rubber, coffee and cocoa have also been grown. The swamp soils, of which there are extensive areas in the delta plains and other parts of the Gulf of Papua and in smaller areas, are found intermittently around the coasts and along the lower reaches of the rivers, and are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the central plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the trough occupied by the Ramu and Markham Rivers.

Climate

The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, naturally presents many variations. Generally speaking the climate is moist and tropical except at high altitudes. There are only small differences in both daily and seasonal extremes. The Territory has no winter and summer, and no great variation in day-length over the year. The two seasons which are experienced are generally described as the 'south-east' and the 'north-west', corresponding with the periods of the year when the south-east trade winds and the north-west monsoons direct the main Territory air-flow. The south-east season prevails approximately from May to October, the trade winds attaining maximum velocities during July and August. The north-west monsoon operates over a considerably shorter period, from the end of December to about March. During the periods between these seasons, November and early December and about March to April, there are two short spells of calm weather.

Rainfall varies considerably from an average annual rainfall of 245 inches at Gasmata in New Britain and 231 inches at Kikori in Papua to about 88 inches at Wewak in New Guinea and 40 inches at Port Moresby.

Although the Territory has no summer and winter it has a wide temperature range, due to differences in altitude, varying from an absolute highest temperature of about 100° F. along the coast to freezing point on its highest peak, Mt. Wilhelm (14,762 ft).

Humidity in the Territory is very high throughout the year. Some coastal stations register an average relative humidity of more than 90 per cent. Humidities below 60 per cent are rare at coastal stations, average figures varying from 80 per cent at 9 a.m. to 65 per cent at noon and 75 per cent at 3 p.m. Humidity in mid-mountain forests appears to be higher than in the lowlands, while in the mossy forests there are periods when the whole belt is saturated.

Land tenure

The *Land Ordinance* 1962 of the Territory of Papua and New Guinea, which came into operation in 1963, replaced much land legislation previously in force separately in the two Territories. This simplification in legislation was a major step towards applying uniform principles to land tenure throughout the whole of the Territory of Papua and New Guinea. All land in the Territory other than native land or land subject to any estates, rights, titles, or interests in force from time to time is Administration land.

There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas some rights remain in the landholding group, and individuals within the group have limited rights of use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by indigenes, the Government has laid down the following broad principles of policy.

> The ultimate and long-term objective in Papua and New Guinea is to introduce throughout the Territory a single system of land holding regulated by the central Administration by statute, administered by the Department of Lands of the central Administration and providing for secure individual registered titles after the pattern of the Australian system.
>
> Only the Administration working through the Department of Lands, Surveys and Mines and through the Registrar of Titles may issue and register land titles.
>
> Land subject to native custom remains subject only to native custom until it is taken out of custom either by acquisition by the Administration or by a process, provided for by the *Land (Tenure Conversion) Ordinance* 1963, of conversion of title to an individual registered title.
>
> Upon either acquisition or conversion of title compensation is provided in respect of extinction of rights under native custom.
>
> Land held under native custom may not be acquired outside of native custom by other than the Administration. Land may not be acquired by the Administration except for prescribed public purposes unless the native owners are willing to sell and the Administration is convinced, through its Department of District Administration, that the land is not required by them, and conversion of title from native custom to individual registered title may take place only if all those interested in the land under native custom consent to conversion and the method of conversion.

The services of Commissioners under the *Land Titles Commission Ordinance* 1962–1966 are used, as a first priority, on investigations into claims by the Administration that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Administration, on settlement of disputes about the ownership of land held under native custom, and on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The Commissioners, as opportunity offers, continue investigations into the holding of land under native custom; the results of such investigations are recorded for use in connection with future acquisitions or conversions of title.

The legislation and administrative steps necessary to put the remainder of this policy into effect are well advanced.

Suitable crops

The crops which can be grown in Papua and New Guinea include coconuts, coffee, tea, rubber, cocoa, fibres, rice, pepper, tobacco, peanuts, kapok, cassava, pyrethrum, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago, and tung oil, but of these the only crops of any commercial importance are coconuts, cocoa, rubber, coffee, peanuts, pyrethrum and passion fruit. Major developments in the production of tea, pyrethrum and oil-palm are under way.

Non-indigenous rural production

In 1965–66 there were 1,218 holdings in use by non-indigenous persons, 348 being in Papua and 870 in New Guinea. The total area of these holdings was 1,020,854 acres, 277,121 in Papua and 743,733 in New Guinea. The following tables summarise the information available for principal activities.

TERRITORY OF PAPUA AND NEW GUINEA
NUMBER OF HOLDINGS, AREA, PRODUCTION AND NEW PLANTINGS
1962 TO 1966

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua)

Year ended 31 March	Holdings	Area under crop(*a*)	Trees(*a*)	Production	New plantings	
					Area	Trees(*b*)
		acres	'000	tons	acres	'000
Coconuts—						
1962 . .	667	261,269	11,732	83,470	5,585	387
1963 . .	682	262,078	11,951	83,878	3,944	242
1964 . .	687	267,578	12,076	83,667	2,771	242
1965 . .	670	262,039	11,995	85,034	4,013	272
1966 . .	667	262,303	11,969	90,258	5,552	427
Cacao—						
1962 . .	427	97,913	15,290	6,971	12,427	2,780
1963 . .	434	105,726	17,403	9,900	9,787	2,496
1964 . .	429	112,404	18,360	11,285	6,349	1,809
1965 . .	435	116,981	19,792	14,326	7,058	1,835
1966 . .	437	122,141	20,677	14,427	8,354	1,870
Coffee—						
1962 . .	236	9,369	5,343	1,986	1,578	931
1963 . .	242	10,305	6,002	2,830	1,078	809
1964 . .	247	10,851	6,865	3,032	890	800
1965 . .	261	12,229	7,860	3,374	1,345	1,162
1966 . .	257	13,399	8,773	3,874	1,283	1,204
Rubber—						
1962 . .	57	31,058	3,491	4,499	1,580	303
1963 . .	71	32,027	3,495	4,760	1,704	301
1964 . .	73	33,797	3,703	4,941	1,419	314
1965 . .	70	33,317	3,768	5,183	1,238	249
1966 . .	81	35,417	3,998	6,185	1,847	344

(*a*) Includes mature and immature areas. (*b*) Includes replacements.

TERRITORY OF PAPUA AND NEW GUINEA: AREA UNDER PRINCIPAL CROPS AND CROP PRODUCTION, YEAR ENDED 31 MARCH 1966

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua)

Crop	Recorded area in acres			Unit	Recorded production			Average yield per productive acre		
	Papua	New Guinea	Total		Papua	New Guinea	Total	Papua	New Guinea	Total
Permanent crops—										
Copra—										
Plantation	34,758	229,633	264,391	ton	9,371	80,838	90,209	0.30	0.42	0.40
Trade(*a*)	. .	. .	. .	ton	842	35,863	36,705	. .	. .	. .
Coconuts, for use as such	. .	. .	. .	ton	129	681	810	. .	. .	. .
Cacao—										
Plantation	11,298	110,928	122,226	cwt (beans)	12,128	276 420	288,548	1.52	3.85	3.62
Trade(*a*)	. .	. .	. .	cwt (beans)	. .	17,785	17,785	. .	. .	. .
Coffee—										
Plantation	682	12,733	13,415	cwt (beans)	562	76,919	77,481	1.25	9.05	8.66
Trade(*a*)	. .	. .	. .	cwt (beans)	29	7,176	7,205	. .	. .	. .
Rubber	34,197	1,220	35,417	cwt (dry)	(*b*)	(*b*)	123,709	(*b*)	(*b*)	4.93
Tea	(*c*)	604	604	lb	. .	(*b*)	(*b*)	. .	(*b*)	(*b*)
Grain crops—										
Maize	69	158	227	bus	902	3,220	4,122	13 07	20.38	18.16
Rice	144	14	158	ton (paddy)	263	9	272	1 83	0 64	1.72
Sorghum	67	377	444	bus	2,040	8,870	10,910	30.45	23.53	24.57
Crops for green fodder—										
Maize	56	57	113	. .	. .	. .	. .	. .	. .	. .
Sorghum	35	350	385	. .	. .	. .	. .	. .	. .	. .
Other	43	156	199	. .	. .	. .	. .	. .	. .	. .
Industrial crops—										
Peanuts	47	6,221	6,268	cwt (kernel)	250	22,115	22,365	5.32	3.56	3.57
Vegetable crops—										
For sale—										
Beans (green)	12	14	26	cwt	313	578	891	26 08	41.27	34.27
Tomatoes	10	16	26	cwt	423	570	993	42 30	35 63	38.19
Potatoes, English	11	11	22	cwt	307	375	682	27 91	34 09	31.00
Potatoes, sweet	63	170	233	cwt	3,231	15,670	18,901	51 29	92 18	81.12
Pumpkins	46	46	92	cwt	1,249	231	1,480	27.15	5.02	16.09
Other	49	28	77	. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
For consumption on holding—										
Potatoes, sweet	691	3,498	4,189	cwt	23,462	174,167	197,629	33.95	49.79	47.18
All other	574	1,606	2,180	. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Orchard fruit—										
Citrus	47	122	169	bus	228	986	1,214	12 67	11.88	12 02
Pineapples	45	45	90	doz	1,037	2,502	3,539	41 48	73 59	59 98
Bananas	207	544	751	bus	13,382	38,250	51,632	86.34	92.39	90.74
All other crops	102	679	781	. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	83,253	369,230	452,483		. .	. .	. .	. .	. .	. .

(*a*) Includes all produce acquired by purchase during the year from sources outside the holding. (*b*) Not available for publication. (*c*) Included in All other crops.

Livestock on non-indigenous holdings

A number of British breeds of cattle are represented, but for best results the use of Zebu cross-bred types of cattle is necessary in virtually all beef cattle areas of the Territory. For dairying the Jersey seems to be the best breed and adapts admirably to tropical conditions. Sheep have not so far been successful in Papua and New Guinea.

Central abattoirs controlled by the Administration have been set up at Lae and Port Moresby and there are smaller private slaughterhouses at other centres.

The following table shows the numbers of the various kinds of livestock on non-indigenously occupied holdings in Papua and New Guinea at 31 March 1966.

TERRITORY OF PAPUA AND NEW GUINEA: LIVESTOCK NUMBERS 31 MARCH 1966

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua)

Kind of stock	Papua	New Guinea	Total
Horses—			
One year and over	460	756	1,216
Foals	93	162	255
Total horses	*553*	*918*	*1,471*
Cattle—			
For dairying—			
Cows—in milk	288	1,305	1,593
dry	332	787	1,119
Heifers, one year and over	165	607	772
Heifer calves, under one year	125	479	604
Bulls, one year and over	75	232	307
Total dairying cattle	985	3,410	4,395
For beef—			
Cows and heifers, one year and over	4,500	14,924	19,424
Calves, under one year	1,969	4,984	6,953
Other, one year and over	1,406	5,671	7,077
Bulls, one year and over	245	735	980
Total beef cattle	8,120	26,314	34,434
Bull calves, under one year	137	648	785
Total, all cattle	*9,242*	*30,372*	*39,614*
Sheep—			
Rams, one year and over	4	17	21
Ewes	31	174	205
Wethers	5	11	16
Lambs, under one year	..	40	40
Total sheep	*40*	*242*	*282*
Pigs—			
Boars	81	212	293
Breeding sows	337	776	1,113
Suckers, weaners, and slips	617	1,607	2,224
Other	103	515	618
Total pigs	*1,138*	*3,110*	*4,248*
Goats—			
Milkers	95	91	186
Others	471	660	1,131
Total goats	*566*	*751*	*1,317*
Poultry—			
Fowls	44,184	50,624	94,808
Ducks	2,322	3,493	5,815
Turkeys	404	692	1,096
Geese	28	56	84
Total poultry	*46,938*	*54,865*	*101,803*

Native agriculture

Most of the indigenous inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar cane, cassava, beans, peanuts, rice, cucurbits, and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas it is cut largely from naturally occurring stands. In other parts of the country small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years the indigenes have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption, and cocoa, coffee and pyrethrum for export. Some small-scale rubber growing is now being undertaken. In coconut areas large quantities of copra are produced. In 1965–66 indigenous production of copra was 34,500 tons and that of cocoa and coffee, 6,800 tons and 4,000 tons respectively. In many localities the indigenes follow a farming system known as bush fallowing rotation, which is described in Year Book No. 48 and earlier issues.

The growing of food is done both by the men and the women. The division of work is usually clearly defined within the village itself, but this division is not necessarily the same in all areas. Generally the felling of forests is done by the men, and carrying the harvested food home to the village is done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of native agriculture for local food supply and improved land use in village gardens as well as for economic production of crops for sale have a high priority in Government policy for the Territory. A five-year (1962–63 to 1966–67) programme for intensification of agricultural work among the indigenous inhabitants is being implemented.

Survey of indigenous agriculture and ancillary surveys, 1961-62

A survey of the agriculture of indigenes of Papua and New Guinea was carried out in 1961–62 by the Territory Bureau of Statistics in conjunction with the Commonwealth Bureau of Census and Statistics and the Territory Department of Agriculture, Stock and Fisheries. A comprehensive report on the surveys was published by the Territory Statistician in 1963, and reference should be made to this for further information. A summary of the principal results of the survey appears on pages 1104–10 of Year Book No. 52.

Co-operative societies

Co-operatives are under the supervision and guidance of a Registry of Co-operatives within the Department of Trade and Industry, and trained staff are stationed in districts throughout the Territory. Societies fall into two main categories, primary and secondary. The primary consist of marketing and consumer retailing bodies dealing directly with individual members. A society which combines both these activities is termed a dual purpose primary. Secondary organisation is represented by associations of societies, formed to achieve an amalgamation of purchasing power in retail consumer store operation and marketing volume in relation to agricultural production, and to concentrate capital to facilitate the purchase of large assets such as shipping, land transport, agricultural machinery, etc.

For the year ended 31 March 1966 primary societies numbered 303, with a membership of 102,120, a total capital of $1,823,091, and a turnover of $5,109,805. Secondary organisations numbered 14, with 242 member societies, a total capital of $623,011, and a turnover of $1,306,471.

Indigenous labour

At 31 March 1966 approximately 94,200 indigenes were engaged in wage employment, 66,300 of these being employed by private enterprise.

Minimum wages and conditions of employment for indigenous workers are prescribed under the *Native Employment Ordinance* 1958–1965. An employer is required to pay a minimum cash wage to every worker employed by him and provide the worker, and his family in appropriate cases, with food, clothing, cooking and eating utensils, towels, soap and other articles, medical attention, and, where necessary, accommodation. The estimated minimum cost of providing these entitlements, including accommodation, is $173.00 a year per worker. The major portion of the workers employed under the conditions prescribed under the Ordinance are unskilled rural workers.

The legal minimum cash portion of the wage has been $39.00 a year for the first year of employment and $45.50 for subsequent years. Following the report of a board of inquiry which investigated rural wages and related matters, legislation is being introduced in 1966–67 to increase these rates to $52.00 a year in the first year, $58.50 in the second year, and $65.00 in the third and subsequent years.

Industrial agreements negotiated between representatives of workers and employers in recent years have covered an increasing number of workers in urban areas. These agreements cover workers in the towns of Port Moresby, Rabaul, Lae, Madang, Wewak, Goroka, Popondetta, Mount Hagen, Kavieng, and Samarai, providing for rates of payment of a total cash wage per week as follows: Port Moresby, Lae and Madang, unskilled adults and married male juniors $6.50, unmarried juniors $6.00; Rabaul, both rates $6.50; elsewhere, both rates $6.00.

The agreements at Rabaul, Port Moresby and Kavieng have been declared by the Administrator-in-Council to be common rules, i.e. they are binding on all employers in these towns.

Agreements entered into in various localities and which have been registered as awards under the Territory's Industrial Relations Ordinance relate to: annual leave and sick leave (two weeks leave on full pay and six days sick leave per annum); the employment of qualified tradesmen (weekly rates of pay $14.00 to $16.00 for second class tradesmen and $18.00 to $20.00 for first class tradesmen); rates of pay and conditions of employment of stevedoring workers and ships' crews; tradesmen who have not completed a formal approved apprenticeship (weekly rates of pay $15.00 to $17.00); and rates of pay and conditions of employment of workers in the timber industry.

There has been a continued expansion of the trade union movement since industrial legislation for the Territory was introduced in March 1963. In March 1967 fourteen associations with a membership of 17,314 had been registered as industrial organisations of workers under the Industrial Organizations Ordinance.

Provision is made in other legislation for the establishment and maintenance of modern standards of industrial safety and for the payment of compensation for injury or disease arising out of, or in the course of, employment.

A local apprenticeship scheme was inaugurated in 1955. An Apprenticeship Board, comprising representatives of private enterprise and government, advises the Administration on apprenticeship matters. At 31 March 1967, 239 apprentices had received trade certificates and 1,086 were in training.

Secondary industries

Until recent years secondary industry, apart from several small service industries, was associated largely with the processing of local products for export. Initially this was confined to the processing of copra, fermenting of cocoa and coffee, and the curing of rubber, activities usually carried out on or near plantations. Then followed secondary industries in their own right with the establishment of a coconut oil plant, plywood factories, and a factory producing passion-fruit pulp and juice.

The emphasis has since tended to move to industries serving the growing internal market and using, in many cases, imported raw materials. These include the manufacture of cigarettes, twist tobacco, wire products, building materials, paints, concrete products, oil drums, and industrial gases; the assembly of electrical appliances; and boat building, brewing and furniture making. A wide variety of service industries has also been established, such as engineering workshops, plumbing establishments, motor repairs, and electrical services. Secondary industries processing primary products are still being established, a recent example being a plant to extract pyrethrum.

TERRITORY OF PAPUA AND NEW GUINEA: SUMMARY OF FACTORY OPERATIONS, 1964-65 AND 1965-66

(*Source: Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua)

		Papua		New Guinea		Total	
		1964–65	1965–66	1964–65	1965–66	1964–65	1965–66
Number of factories(*a*)		138	137	259	270	397	407
Average number employed(*b*)		3,241	4,080	6,165	6,706	9,406	10,786
Salaries and wages paid(*c*)	$'000	2,961	3,655	4,300	5,177	7,261	8,832
Value of power, fuel, light, etc. used(*d*)	,,	399	525	930	946	1,329	1,471
,, ,, materials used(*e*)	,,	5,422	6,690	15,811	18,556	21,233	25,246
,, ,, production(*f*)	,,	6,350	7,128	10,851	11,111	17,201	18,239
,, ,, output(*g*)	,,	12,171	14,343	27,593	30,613	39,764	44,956
,, ,, land and buildings(*h*)	,,	4,170	5,619	5,614	6,175	9,784	11,794
,, ,, plant and machinery(*h*)	,,	6,422	4,477	6,783	7,135	13,205	11,612

(*a*) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (*b*) Average weekly employment including working proprietors. (*c*) Excludes drawings by working proprietors. (*d*) Includes water and lubricating oil. (*e*) Includes value of containers, packing, etc., tools replaced, and repairs to plant. (*f*) Value added in process of manufacture (i.e. value of output less value of materials and power, fuel, etc. used). (*g*) Value of goods produced including amounts received for repair work and other work done. (*h*) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

TERRITORY OF PAPUA AND NEW GUINEA: FACTORY OPERATIONS BY CLASS OF INDUSTRY, 1965-66

(*Source: Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua)

	Class of industry				
	Industrial metals, machines and conveyances	Food, drink and tobacco	Sawmills, plywood and joinery	Other industries	Total
Number of factories . . .	180	65	107	55	407
Number of employees—					
Non-indigenous . . .	918	158	447	240	1,763
Indigenous	2,124	2,287	3,567	1,045	9,023
Total employees . .	*3,042*	*2,445*	*4,014*	*1,285*	*10,786*
Salaries and wages paid . $'000	3,810	1,091	2,630	1,301	8,832
Value of power, fuel and light, etc. . . ,,	220	349	280	622	1,471
,, ,, materials used . ,,	4,894	7,441	5,205	7,706	25,246
,, ,, production . . ,,	5,403	3,797	5,495	3,544	18,239
,, ,, output . . . ,,	10,518	11,586	10,980	11,872	44,956

See footnotes to previous table.

Finance

Revenue and expenditure

Information on the financial operations of each Territory will be found on pages 147-8 and 153-4.

Taxation

The main forms of taxation are income tax, personal tax and import duties.

Income Tax was imposed on 1 August 1959 to operate from 1 July 1959. The scale of taxation is about 50 per cent of the tax payable on the same taxable income in Australia. Deductions for dependants the taxpayer is maintaining and maximum deductions for medical, dental and educational expenses are considerably higher than those allowed in Australia. The tax on public companies is at a flat rate of 20c in the $1, which is little more than half the predominant rate of company tax in Australia, while on private companies the rate is 12.5c in the $1 for the first $10,000 and 17.5c in the $1 for the remainder, and generally comparable deductions are allowed. On 1 January 1958 a *Personal Tax* was introduced for all males (including non-indigenous) in Papua and New Guinea of 18 years of age and over. The maximum tax is $4 per annum; the tax assessed is subject to the taxpayers' ability to pay, and consequently large areas have been exempted. Native Local Government Councils (which are formed voluntarily by the indigenes) are, however, empowered to levy taxes on villagers for the purpose of providing for local services carried out by the Councils. These taxes are set off against the indigene's Personal Taxation.

The present *Customs Tariff* provides high revenue rates on imports of ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods, and jewellery, but allows entry of most necessities affecting living and building costs duty free or at a low rate of duty. Under the Customs Tariff, plant, machinery and chemicals to be used mainly for industrial and developmental purposes are generally duty-free. A by-law covers goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell, and gold were repealed in July 1959.

Provision is made in the *Australian Customs Tariff* (*Papua and New Guinea Preference*) 1936 for the free entry into Australia of certain agricultural goods produced in and imported direct from the Territory (*see* the chapter Overseas Transactions). In addition, goods produced or manufactured in the Territory and imported directly into Australia are exempted from primage duty.

To encourage the development of secondary industry, complete exemption from Territory income tax for a period of five years may be granted to companies engaging in approved new pioneer industries. Exemptions from Australian income tax may also be granted on dividends paid out of the income of such companies to Australian residents.

Banking

Average weekly deposits of cheque-paying banks in the Territory of Papua and New Guinea for the year 1965–66 were $29,176,000 and loans, advances, etc., $9,447,000. Average weekly debits to customers' accounts amounted to $10,452,000. Savings banks depositors' balances at 30 June 1966 amounted to $25,833,000, comprising indigenous $9,182,000 and non-indigenous $16,652,000, having increased since June 1957 from $2,134,000 and $5,802,000 respectively.

Census of Papua and New Guinea, 1966

Introduction

Censuses of the non-indigenous population of the Territory of Papua and New Guinea have been taken in conjunction with censuses of the Commonwealth of Australia. For the indigenous population of the Territory of Papua and New Guinea, estimates of size, geographic location, and the broad age distribution of the population were available from the results of the Department of District Affairs census (formerly known as the Tax Census). This was conducted over most of the Territory, but was continuous rather than conducted at a common date for all areas covered. No regular pattern of operations was adopted, although once the census had been taken in an area it was in general repeated fairly frequently. Although these estimates were of great value, the limitations of the information on population characteristics and the lack of simultaneous collection for all areas made them insufficient for many purposes. The 1966 Census was therefore planned to cover both indigenous and non-indigenous populations, and thus superseded the traditional census of non-indigenes.

Figures for the non-indigenous population as enumerated at censuses held in conjunction with Commonwealth censuses and estimates of the indigenous population based on the Department of District Affairs censuses are set out below.

TERRITORY OF PAPUA AND NEW GUINEA
POPULATION AT CENSUSES, 1921 TO 1961

Year	Indigenous					Non-Indigenous		
	Enumerated			Persons estimated	Total persons	Males	Females	Persons
	Males	Females	Persons					
				PAPUA				
1921 .	59,825	52,687	112,512	..	..	1,408	670	2,078
1933 .	..	..	170,836	..	..	1,232	941	2,173
1941 .	..	..	..	..	..	..	..	..
1947 .	..	..	..	..	..	2,057	1,182	3,239
1950 .	117,455	104,474	221,929	146,630	368,559	..	..	..
1954 .	151,464	134,732	286,136	202,200	488,396	3,867	2,446	6,313
1961 .	236,676	209,632	446,308	67,340	513,648	5,490	4,304	9,794
				NEW GUINEA				
1921 .	(a)100,445	(a) 66,276	(a)166,721	..	..	2,502	671	3,173
1933 .	218,218	182,911	401,129	..	..	3,709	1,507	5,216
1941 .	324,830	318,988	(b)684,284	300,000	984,284	..	..	..
1947 .	..	..	..	..	..	4,369	1,831	6,200
1950 .	415,939	354,116	770,055	301,050	1,071,105	..	..	..
1954 .	538,113	472,480	1,010,593	184,714	1,195,307	7,201	4,241	11,442
1961 .	721,806	647,277	1,369,083	64,300	1,433,383	9,158	6,378	15,536

(a) 1920; figures for 1921 not available. (b) Includes 34,087 indentured labourers, 1,127 native constabulary, 4,823 attending approved mission schools, and 429 patients at Anelaua Leprosarium and Taskul Observation Colony (New Ireland), for which particulars of sex are not available.

It was envisaged that, because of lack of resources, the inhabitants of only about ten per cent of the rural villages would be included in the census together with the entire non-village population, both indigenous and non-indigenous, and that the collection of information would be by personal interviews, except in cases of householders wishing and able to fill in a census schedule.

Development operations

In October and November 1965 a large scale pre-test was held in several village areas. This test proved the feasibility of census operations in villages, and provided information on which to decide the type of schedule, the size of interviewing team, and the required level of education of interviewers. The rate of enumeration achieved in the test confirmed the belief that sampling techniques would have to be used if the census was to be completed with the resources available.

A small pre-test held in an urban settlement in Port Moresby in November 1965 was followed by a full pre-test of urban operations in January 1966. It was not until the results of this test were available that it was definitely known that a census was possible and by what methods it could be carried out. The January field trials led to considerable changes in the wording of census forms, and to substantially complete drafts of instructions for collectors and interviewers.

As a final test of the suitability of the census forms and procedures, and as a test of the training programme, a further field trial was held in March. As a result of this field trial a few minor amendments were made to the census forms, and training methods were considerably improved.

Census operations

The 1966 Census Ordinance provided for a Statistician, with responsibility for the census as a whole, to be appointed by the Administrator. The Statistician appointed for this purpose was Mr K. M. Archer, the Commonwealth Statistician. The Census Regulations provided also for a field organisation in the Territory, headed by a field supervisor, deputy field supervisor, and five assistant field supervisors appointed to assist in particular fields such as training and logistics.

The remainder of the supervisory field staff consisted of nineteen enumerators and more than seventy sub-enumerators appointed from the staff of the Department of District Administration. Each enumerator was responsible for the entire organisation of the census within a district of the Territory, while the sub-enumerators' task included training and assigning census teams, supervising them in the field, and checking their results for such factors as consistency, credibility, and completeness of coverage.

Approximately 500 collectors and 1,300 interviewers were supplied by various Departments of the Administration. The bulk of these were from the Department of Education, which reorganised its school year to provide a three-week school holiday in June-July. Training commenced in March 1966 with the Enumerators' Conference, which lasted nearly a fortnight. The sub-enumerators were trained in four schools, each lasting about a week and a half, during the second half of May and the first half of June. Collectors and interviewers for the remote areas were trained from 14 to 18 June, but the main training period was from 20 to 24 June.

The main enumeration period was the fortnight 27 June–9 July, and well over ninety per cent of the enumeration was carried out within this fortnight. A few remote areas, however, were enumerated by teams which set out on 20 June, returning on or after 9 July. The least permanently settled groups were enumerated as close to the night of 30 June as possible. Enumeration was, with minor exceptions, *de facto* (i.e. in respect of the population *actually resident* at a specific date) in all areas.

The results of the pre-test confirmed that it would be impracticable to enumerate much more than a ten per cent sample of rural villages within a reasonable length of time. It was decided to enumerate completely all non-village areas in view of their specialised character and small population, and the ease of interviewing. A sample of approximately ten per cent of rural villages was therefore selected to represent all rural villages, while all other areas were completely enumerated.

For ease of enumeration, rural villages were grouped together in small clusters of approximately 1,000 persons called 'neighbourhoods'. Neighbourhoods with similar geographical and social characteristics were grouped into 102 strata, each stratum generally containing around 20,000 persons. Two neighbourhoods were selected from each stratum with total probability of selection proportional to population size and without replacement. All persons living in the villages within the selected neighbourhoods were enumerated.

The questions asked in the census in the Territory followed the Australian census questions as closely as possible. This ensured as far as practicable the comparability of census statistics throughout the entire Commonwealth and its Territories and with those for previous censuses of the non-indigenous population of the Territory. Furthermore, this approach permitted certain economies in the planning and conduct of the census field work and processing. To meet the particular circumstances of the Territory, however, certain additional questions were asked—these included questions on language, literacy, subsistence occupation, and polygymous marriage, some questions were asked somewhat differently—for instance the questions on number of children, education, qualifications, and occupation, and the question on duration of existing marriage was omitted.

Responsibility for the processing of results was taken by the census processing staff of the Commonwealth Bureau of Census and Statistics. Preliminary field counts were issued during September and October 1966.

TERRITORY OF PAPUA

General description

Area, etc.

Papua lies wholly within the tropics. The northernmost point touches 5° S. Latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 930 miles; towards either end the breadth from north to south is about 320 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux, and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland and 1,936 on the islands. The total area is 86,100 square miles, of which 83,325 are on the mainland and 2,775 on the islands. A description of the physical characteristics of the Territory appears in earlier issues of the Year Book (*see* No. 18, p. 633).

Administration

Particulars of the early administration of Papua are given in Year Book No. 19, page 576. The Territory was placed under the authority of the Commonwealth on 1 September 1906 by proclamation issued in pursuance of Letters Patent of 18 March 1902 and was accepted by the Commonwealth by the *Papua Act* 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is under the control of the Commonwealth, but not included within it, and is divided into seven administrative districts, Southern Highlands, Chimbu (part), Western, Gulf, Central, Milne Bay, and Northern.

Population

Non-indigenous population

At the Census of 30 June 1966 the non-indigenous population of Papua was 8,357 males, 6,093 females. 14,450 persons. The total non-indigenous population at the Censuses of 1921, 1933, 1947, 1954, and 1961 was, respectively, 2,078, 2,173, 3,239, 6,313, and 9,794 persons. The European population of Papua increased slowly, and with some reversals in trend, from less than 700 in 1906, the year in which the Territory came under Commonwealth control, to 1,343 at the Census of 1921. At the 1961 Census it amounted to 8,260 persons.

Indigenous population

Within the major division, Melanesian, into which most indigenous inhabitants of the Territory are classified, a distinction may be made between a Melanesian type and a Papuan type, the former representative of the eastern mainland and the island archipelagos to the east and south-east, and the latter representative of the western third and the interior of the Territory. Some negrito traits have been noted in a few of the inland mountain groups. The total indigenous population of the Territory of Papua at the Census of 30 June 1966 totalled 586,147 persons of whom 307,979 were males and 278,168 were females. The total number was distributed through districts as follows: Southern Highlands, 183,939; Western, 60,843; Gulf, 55,358; Central, 130,443; Milne Bay, 99,050; and Northern, 56,514. The foregoing figures exclude the population of that part of the district of Chimbu within the Territory of Papua; the total population of that district is shown on page 149.

Land tenure

The basic principles applying to land tenure in Papua are the same as those applying to the whole of the Territory of Papua and New Guinea described on pages 134–5. At 30 June 1966, of the total area of Papua, 55,104,000 acres, only 1,903,589 acres had been alienated. The distribution of alienated land at 30 June 1966 according to tenure was as follows: held by private non-indigenous inhabitants, freehold, 24,280 acres, leasehold, 367,414 acres; native reserves, 67,257 acres; other Administration land, including land reserved for public purposes, 1,444,638 acres.

Although a small amount of freehold land exists in Papua, present legislation does not provide for the granting of estates in freehold. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal, and, in general, leases may be granted for periods of up to ninety-nine years. Rent is based on the unimproved value of the land.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available, and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interests and dealings in alienated land is provided for under the *Real Property Ordinance* 1913–1962 modelled on the Torrens system of land registration.

Production

Primary production

The products of the Territory are obtained principally from its agricultural, forestry, mining, and fishing industries. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, bananas, and papaws. Peanuts are becoming of increasing importance in native diet. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, while native enterprise in other fields of agricultural production for export purposes, e.g. cocoa and coffee, is undertaken. The principal agricultural products of Papua for the export trade are copra and rubber. Native production of copra is increasing. In 1965–66 nearly 1,351 million super. feet of logs were produced The main products of fisheries exported from Papua are trochus shell and mother-of-pearl. Gold, manganese, zinc-lead, and copper ores have been mined in commercial quantities in the past, but current production is limited.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, *see* pages 133–8. The following paragraphs relate to forestry, mining, fisheries, and water-power resources in Papua.

Forestry

A general description of the forest policy, which applies in Papua as well as in the Trust Territory of New Guinea, is given under the heading, Timber, on page 150.

Mixed species tropical rain forest covers most of Papua, although north-east of Port Moresby there is an area of monsoonal savannah country. Because of the mixed nature of the timbers in any one area, their utilisation on an economical basis is somewhat difficult. Mangroves occur in large areas fringing the Gulf of Papua. Forestry field work is carried out in Papua with a view to assessing the forest resources available and also to survey areas subsequently made available for cutting.

At 30 June 1966 twenty permits and seventeen licences were current. The total areas of forest involved were 387,472 acres and 64,328 acres respectively. The total number of logging mills was 33, and the total sawn-timber produced for the year was 10.2 million super feet, most of which was used locally.

Mining

Although a large number of minerals have been found in Papua, including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum, and lignite, current mineral production is not of economic importance. Before the 1939–45 War gold was an important item in Papuan production, but it has since dwindled to insignificance. Large quantities of copper ore were mined and exported up to 1940. Extensive deposits of magnetite sands exist along the Gulf of Papua coastline but these contain the undesirable impurity titanium and ways of separating this from magnetite are under investigation. The *Mining Ordinance* 1937–1966 and the *Mining Development Ordinance* 1955–1960 control mining in Papua.

Since the search for oil began in Papua in 1911 approximately $73 million has been spent. The existence of petroleum has been proved at scattered locations over a large area, but commercial quantities have not been discovered. Natural gas has been found in several wells but its commercial use is not yet economically feasible. At 31 December 1966 fourteen prospecting permits and licences were effective under the provisions of the *Petroleum* (*Prospecting and Mining*) *Ordinance* 1951–1965. Oil prospecting is confined mainly to the Gulf and Western Districts, including off-shore areas in the Gulf of Papua.

Fisheries

Surveys have been carried out of the fisheries resources of Papua. These have been demonstrated to be considerable, and efforts are being made to increase the present small degree of utilisation. Assistance is also being given by the Administration in improving the indigenous methods of fishing, and the use of improved gear is being encouraged by extension workers. Shell fishing, particularly trochus, provides the main cash return, exports being valued at $17,116 in 1965–66.

Water power

Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that at least 1,850 MW could be developed.

The Rouna No. 1 hydro station on the Laloki River near Port Moresby has a capacity of 5.5 MW. A second hydro station at Rouna No. 2 is expected to come into operation in the first half of 1967 with an initial installed capacity of 18 MW. Total planned capacity of this station is 30 MW.

Trade, transport and communication

Value of imports and exports

TERRITORY OF PAPUA: IMPORTS AND EXPORTS
1961–62 TO 1965–66
($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Total imports(a)	*19,702*	*21,438*	*27,617*	*32,733*	*42,865*
Exports—					
Domestic exports	4,780	5,049	5,318	6,075	6,113
Re-exports	1,460	1,625	1,857	2,971	2,827
Total exports	*6,239*	*6,675*	*7,175*	*9,046*	*8,940*

(*a*) Includes outside packages.

Country of origin or destination

TERRITORY OF PAPUA: COUNTRY OF ORIGIN OF IMPORTS
1961-62 TO 1965-66
($'000)

Country of origin	1961–62	1962–63	1963–64	1964–65	1965–66
Australia	12,142	13,581	17,568	20,305	25,986
Canada	67	36	60	73	220
Germany (Federal Republic of)	373	420	582	567	676
Hong Kong	833	850	966	1,011	1,132
Indonesia	642	807	862	493	31
Japan	1,047	1,018	1,575	1,977	3,119
United Kingdom	1,446	1,546	1,648	2,186	3,027
United States of America	1,354	1,154	1,775	2,924	2,925
Other countries	1,797	2,026	2,580	3,197	5,749
Total	19,702	21,438	27,617	32,733	42,865

TERRITORY OF PAPUA: COUNTRY OF DESTINATION OF EXPORTS
1961-62 TO 1965-66
($'000)

Country of destination	1961–62	1962–63	1963–64	1964–65	1965–66
Australia	4,858	5,351	5,752	6,836	6,771
United Kingdom	846	728	650	1,220	1,172
Other countries	536	597	773	990	997
Total	6,239	6,675	7,175	9,046	8,940

Principal commodities exported

TERRITORY OF PAPUA: PRINCIPAL DOMESTIC EXPORTS, 1961-62 TO 1965-66
($'000)

Commodity	1961–62	1962–63	1963–64	1964–65	1965–66
Rubber	2,408	2,331	2,434	2,551	2,562
Copra	1,891	2,085	1,968	2,805	2,550
Cocoa beans	44	48	100	71	123
Gold	1	1	1	2	2
Shell (marine)	55	21	24	26	17
Crocodile skins	254	315	529	392	623
Other	127	249	263	228	236
Total	**4,780**	**5,049**	**5,318**	**6,075**	**6,113**

Shipping

In 1965–66 shipping entries at Territory ports totalled 460, and 279,426 tons of cargo were discharged and 86,278 were loaded.

Regular passenger and freight services operate between Australia, New Guinea and Papua. Vessels trading between Australia and the East also call at Territory ports, and there are services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the two principal ports of Port Moresby and Samarai.

Other forms of transport and communication

Scheduled flights provide a network of air transport throughout Papua, and regular air services link the Territory with Australia and neighbouring Territories. There were 93 aerodromes and seaplane alighting areas in Papua at 30 June 1966, and of these 2 were the responsibility of the Department of Civil Aviation, 47 were operated and maintained by the Administration, and 44 were owned and maintained by Missions. plantation and mining interests. Much of the internal traffic and freight is carried on a charter basis.

At 30 June 1966 there were 2,482 miles of road in Papua, of which 1,360 miles were suitable for medium and heavy traffic, the greater proportion being located in the Central, Milne Bay and Southern Highlands Districts. Total motor vehicle registrations (excluding defence force vehicles) at 31 December 1966 were 6,534.

Telephone services operate in the main centres. The radio station at Port Moresby for both transmission and reception is shared by the Overseas Telecommunications Commission and the Administration. The former provides all external radio-telephone and telex circuits, while the latter operates internal telephone and telegraph services. Local telephone services are provided from automatic exchanges at Port Moresby and Sogeri and from manual exchanges at Popondetta, Samarai and Daru. Services are also being connected at Kerema, Mendi and Tapini. Port Moresby is connected by direct radio-telephone trunk circuits with Popondetta and Samarai and with Lae, Rabaul and Wewak in New Guinea. Radio telegraph services are provided from Port Moresby, Samarai, Kerema, and Daru to over 200 outstations. Medium and short-wave programmes are broadcast from the Australian Broadcasting Commission stations 9PA, VLK3, VLT4, and VLT9 located at Port Moresby. Administration Broadcasting Stations VL8BK, Kerema and VL8BD, Daru also operate.

Education and health

Education

Education in the Territory is provided by the Administration and various Mission organisations. Schools for indigenes, also, have been established by Local Government Councils. The *Education Ordinance* 1952–1963 enables the Administration to establish an education advisory board, district education committees and European and native schools, and to grant financial aid for educational purposes. European teachers are recruited from Australia and overseas, and indigenous teachers are trained in the Territory by the Administration and Missions. During the year ended 30 June 1966, 172 schools were maintained by the Administration for 28,419 children, of whom 1,422 were Europeans, 171 Asian or of mixed race, and 26,826 indigenes. The total number of pupils in the various grades of mission schools was 48,157, of whom there were 1,754 Europeans, and 219 of Asian or mixed race. To assist the educational work of the Missions the Administration provides expert advice, educational equipment and text-books. In addition, the sum of $414,824 was distributed among the Missions as grants-in-aid during the year ended 30 June 1966.

Health

The Department of Public Health of the Territory of Papua and New Guinea has the general oversight of all medical and dental services. The Department has the following seven functional divisions: medical services; preventive medicine; medical training; infant, child and maternal health; medical research; administration; and mental health. The services for the Territory of Papua are under the administrative control of a regional medical officer, with headquarters staff at Port Moresby.

The cases treated in hospital are mainly malaria, tropical ulcers, pneumonia, tubercular infections and tuberculosis, bronchitis, and confinements. At 30 June 1966 the Administration had established 29 general hospitals, 1 hospital for the treatment of Hansen's disease, 1 Hansenide-tuberculosis hospital, 2 tuberculosis hospitals, and 1 mental hospital; the Missions had established 47 general hospitals, 2 Hansenide hospitals, and 1 tuberculosis hospital. There were 495 village aid posts or medical centres (163 Mission), 70 maternal and child welfare clinics (60 Mission), and 535 mobile clinic centres (382 Mission). School medical examinations, immunisation, ante-natal, and post-natal care and pre-school services are also provided. The Missions employ their own doctors and nurses in their medical establishments.

For some years suitably qualified indigenes attended the Central Medical School at Suva, Fiji, to be trained as Assistant Medical Officers. In 1959 the Administration began training to a similar standard at the Papuan Medical College which is associated with the Port Moresby General Hospital. The College, planned to accommodate 600 students eventually, is being built in stages. The course consists of a preliminary year and five years further study. Training for nurses and medical auxiliaries in many categories is also being provided.

Finance

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE, 1961–62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
			REVENUE		
Customs	2,179	2,540	3,109	3,548	4,832
Licences	97	112	136	156	192
Stamp duties	87	99	81	145	158
Postal	667	803	856	1,090	1,437
Land revenue	108	172	152	151	318
Mining receipts	8	7	7	10	12
Fees and fines	26	29	36	56	85
Health revenue	76	89	93	92	108
Forestry	47	48	74	73	97
Agriculture	129	79	96	76	91
Public utilities	691	811	315	279	352
Direct taxation(*a*)	2,558	2,919	3,646	4,917	5,705
Miscellaneous	351	701	1,888	2,428	3,475
Territory loans	. .	. .	. .	. .	(*b*) 2,485
Total internal revenue	*7,025*	*8,409*	*10,489*	*13,023*	*19,347*
Grant by Commonwealth of Australia	14,358	15,728	20,022	22,125	23,821
Total revenue	**21,383**	**24,137**	**30,511**	**35,148**	**43,168**

(*a*) Includes Personal Tax. (*b*) Previously deducted from expenditure.

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE 1961–62 TO 1965–66—*continued*

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
EXPENDITURE					
Expenditure from revenue—					
Special appropriations	394	450	556	874	1,333
Departments—					
Administrator—					
Administrator	356	386	627	380	446
Legislative and Administrator's Councils(*a*)	25	31	43	97	123
Information and Extension Services	60	133	175	200	296
Public Service Commissioner(*b*)	209	186	222	246	319
Treasury—					
Central Treasury	1,223	1,231	1,501	1,641	1,705
Taxation Branch	48	44	52	60	69
Motor Transport Branch	(*c*)	(*c*)	512	564	702
Stores and Supply Branch(*d*)	1,645	1,688	2,712	2,761	3,019
Government Printing Office	(*e*)	(*e*)	76	88	110
Public Health	2,333	2,486	2,775	2,997	3,308
District Administration(*f*)	1,038	1,044	1,231	1,547	1,812
Agriculture, Stock and Fisheries	853	894	1,062	1,334	1,564
Education	1,826	2,333	3,007	3,852	4,554
Labour	83	82	99	140	186
Police	676	690	716	893	1,193
Law—					
Law(*g*)	157	170	200	241	357
Corrective Institutions Branch	80	97	116	137	191
Lands, Surveys and Mines	367	430	515	645	617
Forests	146	141	178	220	316
Posts and Telegraphs	936	995	1,200	1,311	1,585
Trade and Industry(*h*)	312	463	542	746	936
Public Works—					
Public works	377	440	575	1,300	1,274
General maintenance	2,506	2,640	3,141	3,573	3,569
Capital works and services(*i*)	4,913	6,228	7,158	7,525	11,801
Purchase of capital assets	824	883	1,520	1,618	1,883
Expenditure from revenue	*21,386*	*24,163*	*30,511*	*34,988*	*43,268*
Expenditure chargeable to Loan Fund	413	754	1,277	2,407	..
Total expenditure	**21,798**	**24,917**	**31,787**	**37,395**	**43,268**

(*a*) Includes the Administrator's Council which replaced the Executive Council during 1960–61 and the House of Assembly which replaced the Legislative Council during 1963–64. (*b*) Includes expenditure of the Administrative College. (*c*) Transport costs transferred to consuming departments. (*d*) Includes costs of general stores for all departments except Public Works. (*e*) Printing costs transferred to consuming departments. (*f*) Before 1964-65, Department of Native Affairs. (*g*) Up to 1963-64 the Land Titles Commission was included in the Department of Law. The two figures have been combined for 1964–65 and 1965–66. (*h*) Includes Trade and Industry, Customs and Migration, and Marine. (*i*) Additional expenditure on this item included under 'Expenditure chargeable to Loan Fund'.

TRUST TERRITORY OF NEW GUINEA

General description

Area, etc.

The Trust Territory of New Guinea extends from the equator to latitude 8° S., a distance of 400 nautical miles, and from longitude 141° E. to 160°E., a distance of 1,000 nautical miles. The land area is 92,160 square miles, that of the New Guinea mainland being 69,095 square miles and that of adjacent islands, including the Solomon Islands and the Bismarck Archipelago, 23.065 square miles. Information regarding physiography and climate will be found in Year Book No. 22, page 613, in the *Official Handbook of the Territory of New Guinea*, and in the Administration Annual Reports.

Administration

The terms of the League of Nations mandate (1920) of the former German possession of New Guinea are given in Year Book No. 33 (*see* page 264). Particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration are given in Year Book No. 36 and earlier issues, and of events following the outbreak of the Pacific War in Year Book No. 37 and subsequent issues up to No. 48.

Following the 1939–45 War the Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13 December 1946. The terms of the Agreement are shown in Year Book No. 39, pages 355–7.

For administrative purposes the Territory is divided into the following twelve districts: East New Britain and West New Britain, comprising New Britain and the adjacent islands; Morobe, Madang, Eastern Highlands, Chimbu, Western Highlands, East Sepik and West Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

Population

Non-indigenous population

At the Census of 30 June 1966 the non-indigenous population of the Territory was 11,732 males, 8,554 females, 20,286 persons. The total non-indigenous population at the Censuses of 1921, 1933, 1947, 1954, and 1961 was, respectively, 3,173, 5,216, 6.200, 11,442, and 15,536 persons. At the 1961 Census the European population numbered 11,702 persons.

Indigenous population

The indigenous people of the Territory may in general be grouped with the Melanesians who occupy the greater part of the Western Pacific. They may be divided into two main types—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago. the Solomon Islands and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (*See* Year Book No. 16, page 670, and *Official Handbook of the Territory of New Guinea*, Part V.)

The indigenous population of the Territory at the census of 30 June 1966 numbered 1,562,153 persons, (813,174 males and 748,979 females). The total population was distributed throughout the several districts as follows: Eastern Highlands, 201,779 persons; Chimbu, 166,931; Western Highlands, 291,620; West Sepik, 99,112; East Sepik, 157,491; Madang, 150,306; Morobe, 204,887; West New Britain, 43,933; East New Britain, 104,884; New Ireland, 49,246; Bougainville, 71,762; Manus, 20,202. The figure for Chimbu includes particulars of population for that part of the district within the Territory of Papua.

Land tenure

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua, and grants of estates are restricted to leasehold tenure. In New Guinea, however, the amount of freehold land of earlier origin held by private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase, subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at approximately 59,000,000 acres, of which at 30 June 1966 only 1,561,496 acres were alienated. The following was the distribution of alienated land according to tenure at 30 June 1966: held by private non-indigenous inhabitants —freehold, 528,098 acres, leasehold. 407,957 acres; native reserves, 27,150 acres; other Administration land, including land reserved for public purposes, 598,291 acres.

Under German law there was a system of registration of titles in a Ground Book, but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in the *Lands Registration Ordinance* 1924–1962. The land registers were lost during the 1939–1945 War, but provision for restoration of the lost titles is made in the *New Guinea Land Titles Restoration Ordinance* 1951–1966.

Production

The products of the Territory are obtained principally from its agricultural, mining, fishing, and forestry industries. A copra crushing mill near Rabaul, established in 1952, commenced crushing at about 18,000 tons of copra per annum, and its capacity is now about 60,000 tons of copra per annum. At Bulolo a company is producing high quality moisture-proof plywood in a factory with an approximate annual plywood production of 28 million square feet (on a $\frac{3}{16}$-in basis). Native subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, coconuts, bananas, and papaws. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, and in recent years have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption and cocoa, coffee and pyrethrum for export. The principal agricultural products of New Guinea for the export trade are copra and coconut oil, cocoa, and coffee, but exports of timber and timber products are at a high level (*see* below). The main products of fisheries exported from New Guinea are trochus and green snail shell, including that collected by indigenes. Gold is the principal mineral mined. Indigenes are taking an increasing interest in mining for alluvial gold on their own account, and production from this source is continually rising, in contrast to falling European production.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, *see* pages 133–8. The following paragraphs relate to the timber, fishing and mining industries in the Territory of New Guinea alone.

Timber

Various species of timber are found in the Territory, and one accessible pure stand is the valuable pine forests of the Bulolo Valley. This timber is used mainly for the production of plywood and veneer by Commonwealth-New Guinea Timbers Ltd., which has an annual cut of about 10 million super feet of logs. About 23.3 million square feet of plywood, on a $\frac{3}{16}$-in basis, were produced by the company in 1965-66 from these logs and from veneer produced by South Pacific Timbers Limited at Lae. In 1965–66, 17 8 million square feet of plywood, valued at $1,902,953, and 5 8 million square feet of veneer, on a $\frac{1}{16}$-in basis, valued at $83,190, were exported. During the year 26.5 million super feet of logs, valued at $876,616, and 5 1 million super feet of sawn timber, valued at $806,778, were also exported from the Territory. The Territory forests also provided flitches, battery veneer and egg-case parts for export. The Administration operates a training centre for forestry workers, nurseries and a herbarium, and is establishing a research institute in Port Moresby.

The Government intends to make available a number of large-scale permit areas containing from 2,000 to 5,000 million super feet of timber to help overcome the problems of multiplicity of species and continuity of supply of particular species. In opening up these major permit areas consultants are being employed to investigate the forest resources, assess the market potential and recommend working places and forms of processing for each area. Present policy calls for the orderly development of the timber industry on sound forestry principles to ensure no waste of the resources and no over-exploitation. Timber growing on native lands cannot be acquired by private purchasers direct from the native people, but must be obtained through the Administration. Royalty is payable on all forest produce taken under permit or licence. Reforestation of areas dedicated for forestry in perpetuity is carried out by the Administration. At 30 June 1966, 54 permits and 13 licences were current, the total area of forest involved being 575 101 acres and 27,409 acres respectively.

Mining

The production of gold and associated silver is the most important mining activity in New Guinea, although other minerals, such as osmiridium, platinum, copper, iron ore, sulphur, and brown coal, have been discovered. The production of gold in New Guinea since the 1939–45 War has been on a much smaller scale than before the war, decreasing from $1,410,000 in 1959–60 to $925,000 in 1965–66. The discovery of extensive low-grade copper deposits on Bougainville has given impetus to the copper industry in the Territory.

The laws in operation governing mining are the *Mining Ordinance* 1928–1966, the *Mines and Works Regulation Ordinance* 1935–1966 and the *Mining Development Ordinance* 1955–1960 and the regulations made thereunder.

The *Petroleum (Prospecting and Mining) Ordinance* 1951–1965 deals with the issue of permits and the granting of licences and leases for oil exploration. There are two prospecting permits for oil current at the present time.

Water Power

A proposal to establish a hydro-electric power station on the upper Ramu River near Kainantu is under consideration. The proposed scheme would supply Lae, Madang, Kainantu, Goroka, and Mount Hagen. The firm capacity of this station would be 60 MW (72 MW installed) with an initial capacity in the first stage of 24 MW.

Trade, transport and communication

Value of imports and exports

TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS
1961-62 TO 1965-66
($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Total imports(a)	*32,157*	*35,652*	*43,119*	*54,113*	*67,566*
Exports—					
Domestic exports	23,864	27,689	31,342	37,237	37,431
Re-exports	1,698	1,921	2,372	2,858	3,458
Total exports	*25,563*	*29,610*	*33,714*	*40,095*	*40,889*

(a) Includes outside packages.

Countries of origin or destination

TERRITORY OF NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS(a)
1961-62 TO 1965-66
($'000)

Country of origin	1961–62	1962–63	1963–64	1964–65	1965–66
Australia	17,422	19,448	24,029	29,355	36,466
Germany (Fed. Republic of)	1,231	1,290	1,433	1,909	1,644
Hong Kong	2,107	1,991	2,625	2,657	2,913
India	294	293	303	250	449
Indonesia	1,299	1,646	427	184	98
Japan	2,813	2,620	3,749	5,427	6,884
United Kingdom	2,383	2,728	2,752	4,404	5,617
United States of America	2,284	2,455	2,782	3,436	4,583
Other countries	2,324	3,181	5,019	6,491	8,912
Total	**32,157**	**35,652**	**43,119**	**54,113**	**67,566**

(a) Includes outside packages

TERRITORY OF NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS 1961-62 TO 1965-66

($'000)

Country of destination	1961–62	1962–63	1963–64	1964–65	1965–66
Australia	11,089	12,054	14,936	16,758	16,274
United Kingdom	9,188	10,532	10,976	13,849	15,405
Other countries	5,285	7,025	7,802	9,488	9,210
Total	**25,563**	**29,610**	**33,714**	**40,095**	**40,889**

Principal commodities exported

TERRITORY OF NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS 1961-62 TO 1965-66

($'000)

Commodity	1961–62	1962–63	1963–64	1964–65	1965–66
Copra	7,330	7,352	8,050	9,604	11,749
Other coconut products	4,477	5,326	5,189	7,425	6,589
Cocoa beans	3,921	5,863	6,743	6,977	4,311
Coffee beans	3,093	4,024	5,326	7,276	8,712
Peanuts	608	592	573	461	527
Gold	1,435	1,334	1,320	1,076	945
Shell (marine)	57	38	77	47	30
Timber	458	1,115	1,329	1,416	1,683
Plywood	1,870	1,390	1,948	2,021	1,903
Veneer	63	72	68	73	83
Other	553	583	719	861	899
Total	**23,864**	**27,689**	**31,342**	**37,237**	**37,431**

Shipping

Regular passenger and freight services operate between Australia, Papua and the Territory of New Guinea. Vessels trading between the East and Australia and the Pacific Islands call at Territory ports, and there are monthly services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory. Shipping within the Territory is regulated by the *Shipping Ordinance* 1951–1960 and the Coastal Shipping, Ports and Harbours Regulations. Main ports of call for overseas vessels are Lae, Madang, Wewak (mainland), Rabaul (New Britain), and Kavieng (New Ireland). In 1965–66 shipping entries at Territory ports totalled 912, and 436,390 tons of cargo were discharged and 262,576 tons loaded. Corresponding figures for 1964–65 were 847, 401,416, and 247,490, respectively. There are no inland waterways, and the natural river system is not generally suitable for vessels except those of small tonnage.

Other forms of transport and communication

There are no railways in New Guinea, but a road construction programme is being undertaken progressively to assist the economic development of the Territory. Road transport services operate in the main towns and on the trunk roads linking Rabaul and Kokopo; Lae, Bulolo and Wau; Kavieng and Namatanai; and on the network in the Eastern and Western Highland Districts centred on Goroka and Mount Hagen. The total mileage of roads in the Territory of New Guinea at 30 June 1966 was 6,427, of which 3,864 were suitable for heavy and medium traffic. Total motor vehicle registrations (excluding defence force vehicles) at 31 December 1966 were 10,727.

Scheduled flights provide a network of air transport throughout New Guinea, and regular air services link the Territory with Australia and neighbouring territories. There were 230 aerodrome and seaplane alighting areas in New Guinea at 30 June 1966, and of these 10 were controlled by the Department of Civil Aviation, 73 by the Administration, and 147 by private interests.

Telephone services operate in the main centres. Radio telephone trunk circuits link Port Moresby with Lae, Rabaul, Wewak, and Madang, and the latter is connected via the SEACOM cable with Australia and south-east Asia. Nine zone or group centres for radio telegraph communication with about 600 out-stations have been established at Lae, Rabaul, Kavieng, Lorengau, Madang, Mount Hagen, Wewak, Sohano, and Goroka. Medium wave broadcasting programmes are transmitted by the Australian Broadcasting Commission station 9RB Rabaul.

Education and health

Education

Education in the Territory is provided by the Administration and various Mission organisations. Schools for indigenes have also been established by Local Government Councils. The *Education Ordinance* 1952–1965 enables the Administrator to establish an education advisory board, district education committees and schools for all sections of the community, and to grant financial aid for educational purposes. Expatriate teachers are recruited from Australia and overseas, and indigenous teachers are trained in the Territory by the Administration and the Missions. During the year ended 30 June 1966, 348 schools were maintained by the Administration for 49,840 children, of whom 1,670 were Europeans, 393 Asians, 310 of mixed race, and 47,467 indigenes. In addition, 4,324 indigenes were studying by correspondence. The total number of pupils in the various grades of mission schools, excluding exempt schools, was 96,985, of whom 1,895 were Europeans, 495 Asians and 506 of mixed race. To assist the educational work of the Missions the Administration provides expert advice, educational equipment and text-books. In addition, the sum of $1,144,291 was distributed among the Missions as grants-in-aid during the year ended 30 June 1966.

Health

The cases treated in hospital are mainly malaria, pneumonia, tropical ulcers, bronchitis, tubercular infections and tuberculosis, skin infections, and confinements. At 30 June 1966 there were 70 Administration hospitals, including 3 Hansenide colonies, 2 tuberculosis hospitals, and 1 Hansenide and tuberculosis hospital. The Missions have established an additional 82 hospitals, including 6 Hansenide colonies and 1 Hansenide and tuberculosis hospital. There are 1,233 village aid posts or medical centres (163 conducted by Missions) and 1,813 maternity and child welfare centres (1,219 provided by Missions). The Missions staff their own medical establishments but receive financial assistance from the Administration, which also provides much of their medical stores and supplies.

Finance

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
REVENUE					
Customs	3,562	3,974	4,412	5,332	6,951
Licences	171	191	231	275	331
Stamp duties	159	141	114	99	191
Postal	495	514	705	963	1,111
Land revenue	126	133	195	205	335
Mining receipts	26	25	25	26	29
Fees and fines	46	42	55	74	101
Health revenue	104	123	128	141	154
Forestry	396	318	315	389	453
Agriculture	232	213	299	338	494
Direct taxation(*a*)	2,088	2,428	2,971	3,876	4,478
Public utilities	655	765	207	153	204
Miscellaneous	327	773	2,608	3,034	3,627
Territory loans(*b*)	..	..	..	..	3,671
Total internal revenue	*8,387*	*9,640*	*12,265*	*14,906*	*22,130*
Grant by Commonwealth of Australia	20,229	24,272	30,477	33,873	38,179
Total revenue	**28,616**	**33,912**	**42,741**	**48,780**	**60,309**

(*a*) Includes Personal Tax. (*b*) Previously deducted from expenditure.

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE
1961–62 TO 1965–66—*continued*
($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
EXPENDITURE					
Expenditure from revenue—					
Special appropriations	536	763	923	1,420	1,969
Departments—					
Administrator—					
Administrator	471	527	942	606	423
Legislative and Administrator's Councils(*a*)	34	52	71	157	182
Information and Extension Services	95	213	285	332	354
Public Service Commissioner(*b*)	284	315	369	400	471
Treasury—					
Central Treasury	1,796	1,835	2,124	2,297	2,302
Taxation Branch	65	74	87	97	102
Motor Transport Branch	(*c*)	(*c*)	1,147	1,304	1,550
Stores and Supply Branch(*d*)	2,335	2,842	4,502	4,516	4,949
Government Printing Office	(*e*)	(*e*)	126	142	163
Public Health	3,688	4,319	4,702	5,079	6,119
District Administration(*f*)	1,897	1,897	2,108	2,511	2,940
Department of Agriculture, Stock and Fisheries	1,362	1,556	1,916	2,372	2,771
Education	3,120	3,938	4,911	5,945	6,902
Labour	172	210	235	286	286
Police	1,071	1,239	1,253	1,454	1,769
Law—					
Law(*g*)	273	358	417	472	660
Corrective Institutions Branch	82	131	185	221	318
Lands, Surveys and Mines	596	690	869	967	1,241
Forests	610	640	674	773	828
Posts and Telegraphs	1,127	1,327	1,537	1,782	1,943
Trade and Industry(*h*)	359	553	674	785	809
Public Works	513	746	954	2,248	2,078
General maintenance	3,103	3,629	3,727	4,428	5,157
Capital works and services(*i*)	4,050	4,689	5,919	6,107	11,422
Purchase of capital assets	977	1,370	2,085	2,077	2,601
Expenditure from revenue	*28,616*	*33,912*	*42,741*	*48,780*	*60,309*
Expenditure chargeable to Loan Fund—					
Capital works and services	581	1,043	2,119	3,911	..
Total expenditure	**29,197**	**34,955**	**44,861**	**52,691**	**60,309**

(*a*) Includes the Administrator's Council, which replaced the Executive Council during 1960–61, and the House of Assembly, which replaced the Legislative Council during 1963–64. (*b*) Includes the Administrative College. (*c*) Transport costs transferred to consuming departments. (*d*) Includes costs of general stores for all departments except Public Works. (*e*) Printing costs transferred to consuming departments. (*f*) Before 1964–65, Department of Native Affairs. (*g*) Up to 1963–64 the Land Titles Commission was included in the Department of Law. The two figures have been combined for 1964–65 and 1965–66. (*h*) Includes Trade and Industry, Customs and Migration, and Marine. (*i*) Additional expenditure on this item included under Expenditure chargeable to Loan Fund.

TRUST TERRITORY OF NAURU

General description

Nauru is an oval-shaped atoll about twelve miles in circumference, having an area of about 8¼ square miles, of which approximately two-thirds is phosphate-bearing. It is situated in latitude 0° 32′ S. and longitude 166° 55′ E. Portion of the island between the sandy beach and the coral cliffs is comparatively fertile, and it is there that most of the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners and the Missions, the whole of the island is owned by individual Nauruans. The temperature range is from 76° F. at night to 94° F. during the day, and the average humidity is about 80 per cent. Normally the rainfall is comparatively low for islands of the Pacific, the annual average for the twenty years from 1920 to 1940 being 80 5 inches. However, falls as high as 180 inches during 1930 and as low as 11 inches during 1950 have been recorded.

Administration

The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea. Following the 1914–18 War a League of Nations mandate for its administration was conferred upon His Britannic Majesty, and on 2 July 1919 the British, Australian and New Zealand Governments agreed that the administration should be vested in an Administrator. Following the 1939–45 War, the General Assembly of the United Nations approved a Trusteeship Agreement for the Territory of Nauru submitted by the Governments of Australia, New Zealand, and the United Kingdom in substitution for the terms of the mandate under which the Territory had been administered. This Agreement designates the Governments of Australia, New Zealand, and the United Kingdom as the Joint Administering Authority, with the Government of Australia continuing, on behalf of the Administering Authority, to exercise full powers of legislation, administration and jurisdiction in and over the Territory. The terms of the Agreement were given in Year Book No. 39, pages 370–1.

Until 31 January 1966 power to make laws for the Island was vested in the Administrator. On that date a Legislative Council was established, consisting of the Administrator, nine elected Nauruan members and five official members. The Legislative Council is empowered to make Ordinances for the peace, order and good government of the Territory, except in respect of the phosphate industry as such, defence and external affairs. Legislative powers in respect of these subjects are vested in the Governor-General. At the same time an Executive Council was established with power to advise the Administrator. The Executive Council consists of the Administrator, two elected members of the Legislative Council and two official members of that Council. The Nauru Local Government Council, established in 1951 to advise the Administrator on matters affecting the Nauruan community, to carry out works and supply certain services for that community and to direct the Nauru Co-operative Society, also continues to function for the time being. All administration expenses are met from local revenue and phosphate royalties.

Population

The Nauruan component of the population numbered about 1,100 in 1921, but had grown to more than 1,800 before the Japanese invasion in August 1942. In 1946 it numbered less than 1,400, but by 30 June 1966 was about 3,000. Chinese have, for many years, formed a considerable part of the population of Nauru, but their numbers are not as great as formerly; at 30 June 1966 they were about 1,100. The number of other Pacific Islanders in the early 1920's was almost 300, but they subsequently decreased, then rose again, and at 30 June 1966 were about 1,500. The European population after 1921 fluctuated, with a generally upward trend, between one and two hundred, and in recent years has gradually increased, being about 400 at 30 June 1966. The total population of Nauru at the Census of 30 June 1966 was 3,696 males, 2,360 females, 6,056 persons.

Future of Nauruans

Resettlement. Some years ago investigations were made to find a suitable home for the Nauruan people after the exhaustion of the phosphate deposits towards the end of this century. After inspection of several islands, Curtis Island off the Queensland coast was agreed upon as a suitable location for resettlement purposes. However, at subsequent discussions with representatives of the Australian Government the Nauruans made it clear that, although Curtis Island was regarded as a place which would be suitable for Nauruan resettlement, the powers reserved to Australia in that event should be only those which relate to defence, quarantine and possibly external affairs and civil aviation. The Australians informed the Nauruans that the Commonwealth Government could not accept the proposal that the Nauruan people be established on Curtis Island on such terms, but gave further expression to the sympathy of the Australian Government with the desire of the Nauruan people to retain their identity as a distinct community and said that the Government was prepared to see what else could be done to achieve this end.

The Nauruans informed the Australians that the Nauru Local Government Council considered that there were no prospects of an agreement on the proposal for resettlement at Curtis Island because of the differences in the Australian and Nauruan views on the political aspects of the proposal, and they considered, therefore, that there should be no further discussion of resettlement on Curtis Island. The Council nevertheless expressed its willingness, if the Australian Government thought further talks would achieve a useful end, to take part in them. The Nauru Local Government Council then informed the Australian Government that the people of Nauru would elect to remain on Nauru.

At a later series of discussions held in May and June 1965 the Australian Government agreed to pursue any proposals that might give promise of enabling the Nauruan people to resettle on a basis acceptable to them and one which would preserve their national identity.

Further discussions were held with representatives of the Nauruans in June and July 1966, when the Nauruans were informed that if they asked the Administering Authority to consider the resettlement question further they should submit any new proposals in as specific a form as possible.

Reclamation of worked-out lands. At the conference in July and August 1964 the Nauruans raised the question of the possibility of reclaiming the worked-out phosphate land and suggested that if this land were covered with soil, it would be possible to use it for agriculture. Australia drew attention to the report made by the Commonwealth Scientific and Industrial Research Organization some years ago which said that there seemed to be little hope of widespread utilisation in the future of the worked-out lands. The question was further discussed during the second series of talks in May and June 1965 between Australian Government representatives and a delegation from the Nauru Local Government Council, particularly in connection with the decision of the Nauruans to pursue their future on the Island of Nauru. It was agreed to establish at the earliest practicable date an independent technical committee of experts to examine what would be involved in, and the practicability of the rehabilitation of, the worked-out phosphate lands. The committee, comprising an Australian engineering consultant, a Professor of Agricultural Economics from an Australian university, and a soils scientist from FAO, was appointed towards the end of 1965, and visited Nauru in February 1966. The committee's report is currently being considered by the Nauru Local Government Council and the Australian Government.

Phosphate deposits

From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity of phosphate remaining on Nauru has been estimated at 61,409,000 wet tons.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments on 25 June 1920 for £Stg3,500,000, the purchase money being contributed in the proportions of 42, 42 and 16 per cent respectively. The Agreement of 2 July 1919 provides for the working of the deposits by three British Phosphate Commissioners, one appointed by each Government, and the three countries are entitled to receive the output in the same proportions of 42, 42 and 16 per cent. In practice Britain has never taken its full entitlement of phosphate from Nauru. Consequently the bulk of the exports are to Australia and New Zealand.

Exports of phosphate from Nauru in 1965–66 amounted to 1,528,300 tons, of which approximately 816,000 tons went to Australia, 516,000 tons to New Zealand, and 196,000 tons to the United Kingdom. During the five years ended 30 June 1966, 8,026,600 tons of phosphate were exported.

Apart from a limited number of Europeans the employees of the Commissioners are Chinese and Pacific Islanders engaged under one year contracts. Increasing numbers of Nauruans are being employed, mainly in trade capacities.

Royalties on phosphate

Dating from the establishment of the British Phosphate Commissioners in 1919 royalties have been payable for each ton of phosphate exported in amounts agreed upon between the Commissioners and the Nauru Local Government Council from time to time. Following the talks with the Nauruan delegation in May and June 1965, agreement was reached for royalties to be increased from 37c a ton to $1.35 a ton for 1964–65 and to $1.75 a ton for 1965–66.

In addition, payments are made, currently at $240 per acre, for land leased for phosphate mining or for sites for permanent installations on phosphate land. Payments are also made for coconut and other trees removed or destroyed during the mining.

Trade, transport and communication

The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider, and perry. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt. The tariff rates apply to all countries alike. In 1965–66 imports were valued at $6,366,248 and exports, 1,528,295 tons of phosphate, at $8,659,472. Of the total imports in 1965–66, Australia supplied 82 per cent valued at $5,221,445, the balance coming mainly from Hong Kong, New Zealand and the United Kingdom.

There is no regular air service to Nauru, but when the need arises charter flights are made to the island. There is relatively frequent communication by sea with the island. Most of the vessels are run or chartered by the British Phosphate Commissioners for the carriage of phosphate. Many of them also provide for the carriage of passengers and other cargo as required. The total calls by vessels were 157 in 1965–66.

Nauru is linked by telecommunications with Australia and, via Australia, other parts of the world. Regular radio schedules are operated with Sydney and with other Pacific island stations, and a daily radio teleprinter service with Australia has been in operation since November 1966.

Education

The Administration assumed full responsibility for education on 1 October 1923. Prior to that date the education of Nauruan children was undertaken by the Missions, which were subsidised by the Administration. The Administration operates six infant schools, two primary schools and a secondary school, and there is a mission school which also provides instruction at these three levels. At 30 June 1966 there were 833 Nauruans, 278 other Pacific Islanders, 106 Chinese, and 81 Europeans enrolled in the infant and primary schools, and 317 at secondary level.

The curriculum is based generally on that used in Victorian schools, and the teaching is generally in English. Education is compulsory for Nauruan children from six to seventeen years of age. At 30 June 1966 ninety-two Nauruans were studying in Australia. Of these, 50 held Administration scholarships, 12 were Administration cadets, three were Administration sponsored apprentices, and 27 were privately sponsored. In addition to these there was one Administration sponsored student attending the Papuan Medical College and one privately sponsored student studying in Papua and New Guinea.

Health

Cases of the usual diseases known in the Pacific occur, but the health of all sections of the population is generally satisfactory. An area has been set apart for the segregation of sufferers from Hansen's disease, and the latest methods of treatment are applied. The total number of persons receiving treatment at 30 June 1966 was 43, of whom, however, only 3 were in segregation at the Hansenide colony. Three hospitals are maintained on the island, one by the Administration for Nauruans and two by the British Phosphate Commissioners. The Administration also conducts eleven maternity and child health centres. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo medical examination at intervals of three months.

Judiciary

By virtue of the *Nauru Act* 1965 there is a Central Court which is a superior court of record consisting of a judge appointed by the Governor-General and such magistrates as are appointed by the Administrator. A Court of Appeal, comprising a judge or judges appointed by the Governor-General, has also been constituted under the Act. The District Court established by the *Judiciary Ordinance* 1957–1965 of the Territory is continued in existence by the same Act.

Revenue and expenditure

The revenue of the Administration for the year 1965–66 amounted to $1,940,704 and expenditure to $1,778,214. Of the revenue, payments by the British Phosphate Commissioners amounted to $1,724,272, post office and radio receipts, $160,559, and import duties, $8,736. Expenditure comprised salaries, $684,091, general expenses, $352,311, miscellaneous services, $444,430, and capital works and services, $297,382.

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953.

In December 1947 an Australian scientific station was established on Heard Island, and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. Heard Island is about twenty-seven miles long and thirteen miles wide. The McDonald Islands are twenty-six miles to the west of Heard Island. They are small, rocky and precipitous.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Adelie Land situated south of 60° S. latitude and lying between 160° E. longitude and 45° E. longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Adelie Land were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60° S. latitude lying between 136° E. longitude and 142° E. longitude. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory.

On 13 February 1954 the Australian National Antarctic Research Expeditions (ANARE) established a base on MacRobertson Land at latitude 67° 36′ S. and longitude 62° 53′ E. The base was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 34′ 36″ S. and longitude 77° 58′ 36″ E. The station was named Davis in honour of Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. The station was temporarily closed down in January 1965. In February 1959 the Australian Government accepted from the United States Government custody of Wilkes Station, which was established by the United States on 16 January 1957 on Vincennes Bay, at latitude 66° 15′ S. and longitude 110° 33′ E. The station was named in honour of Lieut. Charles Wilkes, who commanded the 1838–40 United States expedition to the area. A new station of advanced design is being constructed close to Wilkes which it will eventually replace. ANARE have also operated a station, since the 1947–48 Antarctic season, at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

On 1 December 1959 Australia signed the Antarctic Treaty with Argentine, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., the United Kingdom, and the United States of America. Poland, Czechoslovakia and Denmark have subsequently acceded to the Treaty. The Treaty reserves the Antarctic area south of 60° S. latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and preserves, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. The Treaty entered into force on 23 June 1961. Since then the Antarctic Treaty powers have held four consultative meetings under the Treaty, the first at Canberra in July 1961, the second at Buenos Aires in July 1962, the third at Brussels in June 1964, and the fourth at Santiago in 1966.

COCOS (KEELING) ISLANDS

General description

The Cocos (Keeling) Islands, two separate atolls comprising some twenty-seven small coral islands with a total area of about 5½ square miles, are situated in the Indian Ocean in latitude 12° 5′ S. and longitude 96° 53′ E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west, and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about six miles from north to south, on which are the aerodrome and most of the European community; Home Island, the head-quarters of the Clunies-Ross Estate; Direction Island, on which was situated (until August 1966) the Cable and Wireless Station operated by the Overseas Telecommunications Commission (Australia) and the Department of Civil Aviation's marine base; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about fifteen miles to the north of the groups and has no inhabitants.

Main settlements are on West Island and Home Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and the average rainfall is about 67 inches. There are occasional violent storms. The worst cyclone in the recorded history of the islands was in 1909, when about 400,000 coconut palms were uprooted or decapitated and the accompanying tidal wave left only five buildings standing.

The population at the Census of 30 June 1966 was 684.

History and administration

Summarised particulars of the discovery of the islands and their history up to 1946, when they became a dependency of the Colony of Singapore, are given in Year Book No. 51, page 140, and in earlier issues. On 23 November 1955 the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the *Cocos (Keeling) Islands Act* 1955 of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth to be known as the Territory of Cocos (Keeling) Islands.

Responsibility for the administration of the Territory rests with the Minister for Territories. The first Official Representative was appointed on 23 November 1955 to take charge of the local administration of the Territory. Under the *Official Representative Ordinance* 1955–1961 of the Territory the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the *Cocos (Keeling) Islands Act* 1955–1966 or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos (Keeling) Islands Act* 1955–1966. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

Transport and communication

There is an international airport at West Island under the control of the Commonwealth Department of Civil Aviation. This is a re-fuelling point for aircraft of Qantas Empire Airways Ltd, South African Airways and British Eagle International Airways, which operate weekly services between Australia and South Africa. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals. A telegraph station, operated and staffed by the Overseas Telecommunications Commission (Australia), on Direction Island, was closed down in August 1966. A teleprinter service has been inaugurated between West Island and Australia. It is operated by the Administration on behalf of the Commission.

CHRISTMAS ISLAND

Christmas Island is an isolated bank situated in the Indian Ocean in latitude 10° 25′ 22″ S., longitude 105° 39′ 59″ E. It is approximately 220 miles south from Java Head at the south entrance to Sunda Strait, 815 miles from Singapore and 1,630 miles from Fremantle. Christmas Island covers an area of about fifty-two square miles. It consists of a central plateau of about 600 to 800 feet with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the island except in a few places, the chief of which is Flying Fish Cove where the principal settlement is located and which is also the only known anchorage.

The climate is healthy and pleasant and the prevailing winds come from the south-east to east-south-east from May to December, but from then to April (the wet season) they occasionally shift round to between north and west. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

The economy of the Territory is based almost entirely on the mining and extraction of phosphate. Because of the nature of the land there appears little prospect of establishing any other economic activity.

The population of Christmas Island at 30 June 1961 was 3,099 (1,963 males and 1,136 females). At the census of 30 June 1966 the total population was, 3,381 (2,151 males and 1,230 females).

Education

At 30 June 1966 there were two school systems on the Island—the Christmas Island school system which serves the majority of the children and a European school which serves a small number of children. The Christmas Island school system follows the Singapore curriculum, with 27 teachers, mostly Singapore trained, and 840 pupils (667 primary and 173 secondary). The European school follows the Western Australian primary school syllabus, with one teacher seconded from the Western Australian Department of Education, and 37 pupils.

Four Administration scholarships are available each year for Asian students who have completed a three year secondary course to enable them to receive further secondary education at Singapore or Malaya up to University Matriculation level. An education allowance of $290 per annum, plus annual return fare for the scholar, is paid to Europeans resident in the Territory who send their children to Australia for secondary education. The British Phosphate Commission awards scholarships from time to time.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony from 1 January 1958, pending transfer to Australia, are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the Island was transferred to the Commonwealth of Australia by the *Christmas Island Act* 1958 and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for Territories, and day to day affairs on the island are administered by an Official Representative under delegation from the Minister. The laws which were in force in the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia.

Phosphate deposits

The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission. There are three principal phosphate deposits on the island of which the largest is that now being worked at South Point. This field is situated on the 600 feet to 800 feet level and is approximately 12 miles from the drying and shipping plant at Flying Fish Cove. During 1965–66 approximately 782,000 tons of phosphate were exported to Australia and New Zealand. In addition some 83,508 tons of phosphate dust were exported to Malaysia, Singapore and Australia.

Transport and communication

Transport to and from the island is maintained by vessels operated under charter by the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore, and other vessels carry phosphate to Fremantle and other Australian ports.

An internal telephone system is operated by the British Phosphate Commissioners. It includes three major automatic exchanges and three small subscriber-attended exchanges. A radio station is also operated by the Commissioners for messages via Perth and Singapore and for communication with ships at sea, and installation of a radio teleprinter link with Perth is planned.

CHAPTER 8

POPULATION

Statistics in this chapter cover, in the main, the year 1966. More detailed figures will be found in the annual bulletin *Demography*, and current statistics are published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and the mimeographed series *Australian Demographic Review* and *Oversea Arrivals and Departures*. All statistics in this chapter, except those on page 206, The Aboriginal Population of Australia, are exclusive of particulars of full-blood Aborigines*.

The final detailed results of the various population censuses are published in a series of printed volumes and parts (*see* list at end of this Year Book, *also* the chapter Miscellaneous—Statistical and other official publications of Australia†, for earlier censuses). Pending publication of the 1966 printed volumes a series of mimeographed bulletins will be issued containing the census results in interim form (*see* reference† above for titles).

Types of population statistics

Statistics of the population and its characteristics for Australia or the component States and Territories or other constituent areas at specific dates are divided in three main ways.

(i) *Those ascertained by census enumeration*. The population censuses result in comprehensive statistics of characteristics of the population, such as age, sex, birthplace, etc.

(ii) *Those ascertained by 'population counts'*. From time to time in specific areas there are additional enumerations of the population, which are known as population counts, because normally very little information other than number of persons and their sex is obtained.

(iii) *Estimates of number and sex*. Estimates for dates subsequent to a census, for Australia as a whole, take account of natural increase and net overseas migration since the last census. Estimates for States and Territories are approximate, since complete records of interstate migration are not available. The population in each State and Territory is estimated by adding to the population ascertained at the census the natural increase and the recorded net gain to Australia from overseas migration for that State or Territory; gains and corresponding losses that result from movements between States and Territories are also taken into account in so far as they are recorded as transfers of residence under child endowment procedures or Commonwealth electoral procedures supplemented by results of any special count or sample survey. Holiday, business, or other similar short-term movements between the States and Territories subsequent to the census are omitted.

Estimates carried forward in this way eventually reach the point when another census is taken and the population so ascertained supersedes that resulting from the estimates. In the light of the census results the estimates for the newly completed intercensal period are revised to adjust for the differences between the new census result and the population at the census date estimated on the basis of the previous census. This is to bring intercensal estimates into line with the two census results and thus effect adjustment for unrecorded or inaccurately recorded movement of population in the intercensal period. Such a revision is made when the preliminary (field count) results of a census become available. A second revision may be necessary when the final results of a census become available.

Final revised estimates become the permanent population estimates. A mean population for twelve month periods is required for certain purposes, and is calculated by the method described on page 178. As populations at specific dates are used in these calculations, consequential revisions are made to mean populations when the estimates for specific dates are revised as described above.

The method used for estimating State and Territory populations, as described in (iii) *above is different from that used prior to June 1961* (for particulars *see* earlier Year Books). Population estimates subsequent to the 1961 Census are based on a method which excludes holiday, business or other similar short-term movements, since the census, between States and Territories. As a consequence, marked quarterly seasonal movements in some States due to interstate holiday movements are reflected in population figures prior to 1961 but not for subsequent years. This has some effect on the continuity of the series of mean population figures and should be borne in mind when making calculations which use mean populations as a basis (*see* page 178).

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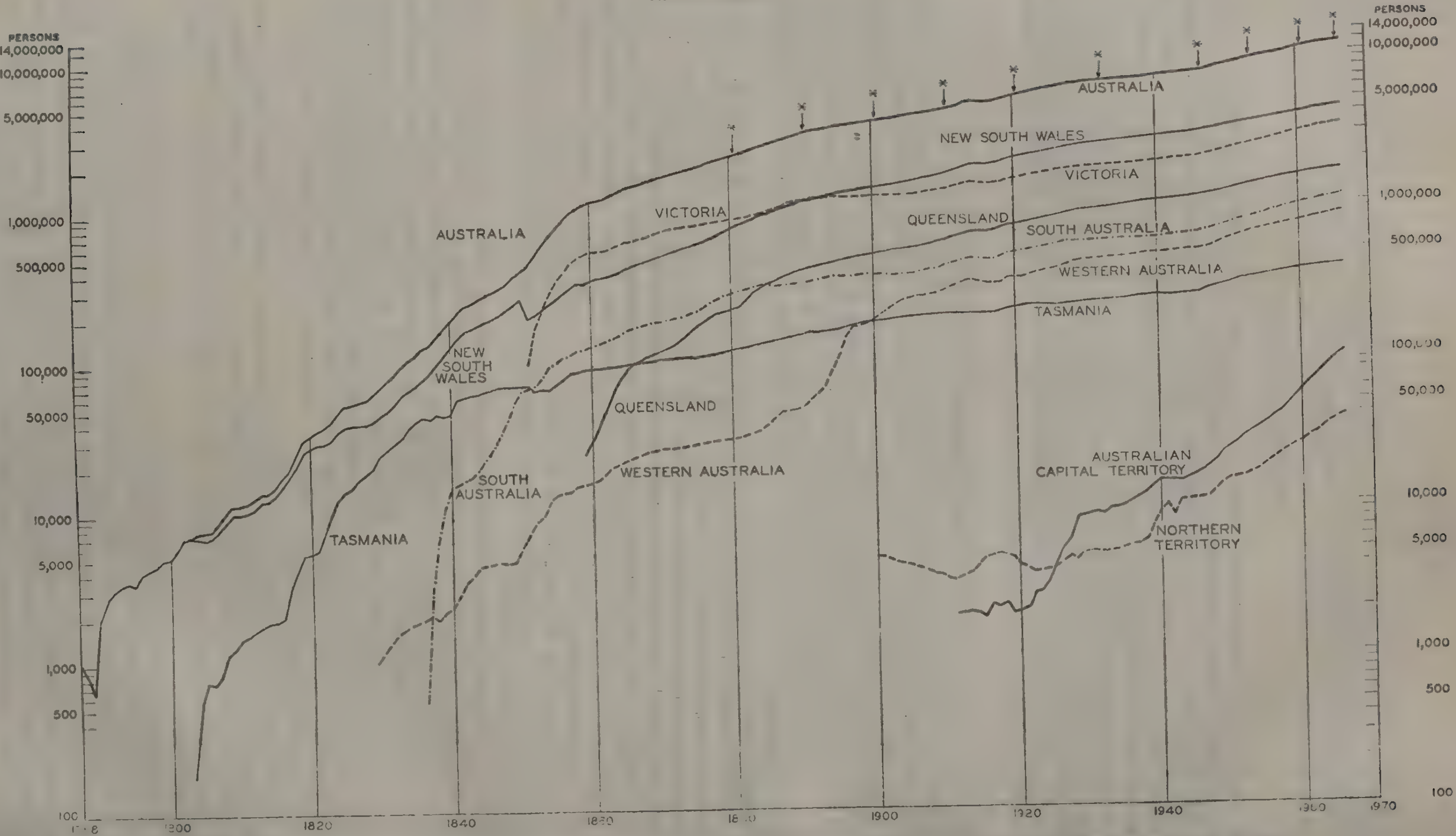
* *See* Appendix for results of *Constitution Alteration (Aboriginals)* 1967 Referendum.

POPULATION OF AUSTRALIA, 1788 TO 1966

RATIO GRAPH



NOTE. THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE

* AUSTRALIAN CENSUS

PLATE 16

All population statistics shown in this issue of the Year Book for dates up to and including June 1961, and all mean populations for calendar years up to 1960 and financial years up to 1960–61, are final. Population statistics for dates or years subsequent to these will be revised in accordance with the final results of the June 1966 census. The 1966 census figures quoted in this issue are preliminary only. They have been compiled by field personnel during the taking of the census and are subject to amendment. These 1966 figures are for total population only, and statistics of its characteristics are not yet available for later than the 1961 census.

THE CENSUS

Pre-federation activity

Early 'musters'

Although regular censuses were not instituted in the several colonies until the years specified in the table below, population returns in one form or another have existed from a very early period in the history of Australia. The earliest enumerations were known as 'musters', and although the actual results of very few of them have been preserved, it is probable that during the early days of colonisation they were of frequent occurrence. The first official 'muster' was taken in 1788, soon after the new settlement at Sydney Cove was formed, and in 1803 the first 'muster' of convicts in Van Dieman's Land (now Tasmania) was conducted. The location of 'mustering' stations from 1813 to 1825 indicates the growth of the infant colony of New South Wales. The material on the census on pages 164–70 has been derived in the main from Statistician's Reports for successive Commonwealth censuses. These provide a continuous record of census developments in Australia since 1911, and should be referred to for greater detail than can be included herein.

CENSUSES IN AUSTRALIA, 1828 TO 1966

Date	Population enumerated (excluding full-blood Aborigines)								
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1828– November .	36,598	..	..	..	..	..	..	..	..
1833– 2 September .	60,794	..	..	..	..	..	..	..	..
1836– 2 September .	77,096	..	..	..	..	..	..	..	..
1841 2 March . .	130,856	..	..	..	..	..	..	..	..
27 September .	..	..	..	..	..	50,216	..	..	..
1844–26 February .	..	..	..	17,366	..	..	..	..	..
1846–26 February .	..	..	..	22,390	..	..	..	..	..
2 March . .	189,609	..	..	..	..	..	..	..	..
1847–31 December .	..	..	..	..	..	70,164	..	..	..
1848-10 October .	..	..	..	..	4,622	..	..	..	..
1851– 1 January .	..	..	..	63,700	..	..	..	..	..
1 March . .	268,344	..	..	..	..	70,130	..	..	..
1854–26 April . .	..	(*a*)234,298	..	..	..	..	..	..	..
30 September .	..	..	..	..	11,743	..	..	..	..
1855–31 March . .	..	..	..	85,821	..	..	..	..	..
1856– 1 March . .	269,722	..	..	..	..	..	..	..	..
1857–29 March . .	..	408,998	..	..	..	..	..	..	..
31 March . .	..	..	..	..	..	81,492	..	..	..
1859-31 December .	..	..	..	..	14,837	..	..	..	..
1861– 7 April . .	350,860	538,628	(*a*)30.059	126.830	..	89,977	..	..	..
1864– 1 January .	..	..	61,467	..	..	..	..	..	..
1866–26 March . .	..	..	..	163,452	..	..	..	..	..
1868– 2 March . .	..	..	99.901	..	..	..	..	..	..
1870– 7 February .	..	..	..	..	..	99,328	..	..	..
31 March . .	..	..	..	..	24,785	..	..	..	..
1871– 2 April . .	502,998	730,198	..	185.626	..	..	..	..	..
1 September .	..	..	120.104	..	..	..	..	..	..
1876–26 March . .	..	..	..	213,271	..	..	..	..	..
1 May . .	..	..	173.283	..	..	..	..	..	..
1881– 3 April . .	749,825	861.566	213.525	276.414	29.708	115.705	(*b*)3.451	..	2.250.194
1886– 1 May . .	..	..	322,853	..	..	..	..	..	..
1891– 5 April . .	1,127,137	1.140.088	393.718	315.533	49.782	146.667	4,898	..	3,177 823
1901 31 March . .	1,354,846	1.201.070	498 129	358,346	184.124	172.475	4.811	..	3.773.801
1911- 3 April . .	1.646,734	1.315.551	605 813	408 558	282 114	191.211	3.310	(*a*)1.714	4.455.005
1921 - 4 April . .	2.100,371	1,531.280	755.972	495 160	332.732	213.780	3.867	2.572	5.435 734
1933–30 June . .	2 600.847	1 820.261	947.534	580,949	438,852	227,599	4.850	8,947	6.629.839
1947–30 June . .	2 984.838	2.054.701	1,106.415	646.073	502.480	257.078	10.868	16.905	7 579.358
1954–30 June . .	3 423.529	2.452,341	1.318 259	797 094	639,771	308.752	16.469	30.315	8.986.530
1961–30 June . .	3,917.013	2,930,113	1.518,828	969.340	736,629	350.340	27.095	58.828	10.508.186
1966 30 June(*c*) .	4,231,103	3,217,832	1 661.240	1,090,723	835.570	371.217	37.166	95,913	11,540,764

(*a*) Previously included with New South Wales. (*b*) Included with South Australia for the censuses of 1866, 1871 and 1876. Actually Northern Territory was not transferred to the Commonwealth until 1 January 1911. (*c*) Field count totals. Subject to revision on receipt of final figures.

Development of the census

The first regular census in Australia was taken in New South Wales in November 1828, and included the population of Moreton Bay (now Queensland) but not Van Dieman's Land (Tasmania). Particulars were asked concerning the names, ages and civil conditions of the inhabitants. The next census was taken in 1833, and was followed by another in 1836, when arrangements were made for the enumeration of the population of the newly-established settlement at Port Phillip (Victoria). The first censuses taken in Tasmania, Victoria and Queensland as separate colonies were in 1841, 1854 and 1861 respectively. The first regular census in South Australia was taken in 1844 and in Western Australia in 1848. The 1881 census was the first simultaneous census taken in Australia and formed part of the first simultaneous census of the British Empire.

Census conferences

Although the census methods adopted in the several Australian colonies, being based on a common prototype (i.e. the English methods), conduced towards general uniformity, nevertheless it appeared evident in the course of time that the methods of inquiry and tabulation were in certain respects ill-adapted to Australasian conditions. In 1890, therefore, a Conference of Statisticians was held at Hobart for the purpose of preparing a scheme by means of which the census information could be collected and tabulated throughout Australasia in a uniform and effective manner. The Conference resulted in considerable improvement in the degree of uniformity attained in the censuses of 1891 and in the increased fruitfulness of the inquiries. In 1900 another Conference of Australasian Statisticians was held in Sydney with the object of agreeing to such measures as would lead to uniformity in regard to: (a) the date of the census, (b) the subjects of the inquiry, and (c) the methods of compilation and tabulation. (New Zealand was represented at both these pre-Federation Conferences.) Briefly, the results of the Census Conferences of 1890 and 1900 were to bring about the adoption of a uniform procedure by which the census authorities throughout Australia agreed to institute the same inquiries on the same date, and to present the results in the various reports drawn up by them, as nearly as practicable, in the same manner. Although uniformity on the form of the schedule was attained, minor differences arose as to the interpretation of terms. Moreover, the method of presentation of the results differed considerably, the results of all the inquiries were not tabulated in all cases, and there was no co-ordinating authority to bring the results together to form a total for Australia. At the census of 1911, the first census taken under the aegis of the Commonwealth Government, the control of the census of the whole of Australia was centralised in the Commonwealth Statistician, thus enabling the attainment of (a) substantial identity in the method of collection, (b) identity of categories under which the returns are to be tabulated, and (c) uniformity in the interpretation of terms and in the scheme of presenting facts.

Censuses of the Commonwealth

Under the Commonwealth of Australia Constitution Act of 1900, 'Census and Statistics' became Commonwealth functions. Provision for census-taking under Commonwealth law was not made until the *Census and Statistics Act* 1905. The census of the Commonwealth of Australia is taken under the authority of this Act (now *Census and Statistics Act* 1905–1966) and the regulations made thereunder. The first Australian census collected under the Act was that of 1911; subsequent censuses were taken in the years 1921, 1933, 1947, 1954, 1961, and 1966. The Act provided that the census should be taken by means of a householder's schedule delivered to every dwelling and that this schedule should contain particulars of the dwelling and its inmates.

Periodicity and date of the census

The *Census and Statistics Act* 1905 provided that the Census should be taken 'in the year one thousand nine hundred and eleven and in every tenth year thereafter'. But in 1930 this was amended by the addition of the words 'or at such other time as is prescribed'. Because of the economic depression prevailing in 1931 the third Australian census was not taken until 1933, and because of war conditions the fourth Australian census was not taken until 1947. Consideration was then given to the practicability of holding future censuses in the series of years originally envisaged. However, it was considered that the interval of years from 1947 to 1951 was too short; therefore it was decided to take the fifth census in 1954 at the mid-point of the period from 1947 to 1961. The sixth census was held in 1961. Because of the administrative demand for more frequent counts of the population the seventh census was held in 1966.

The Census and Statistics Act provides that 'the Census day shall be a day appointed for that purpose by proclamation', but the actual date is not specified. The census is conducted on a strictly *de facto* basis, i.e. it records the population actually in Australia at the place where residing on census day (as distinct from a *de jure* basis, which records the population according to place of usual residence). In the selection of census day every endeavour is made to choose a date when there is a minimum displacement of population. In 1911 and 1921, census day was near the beginning of April, but in 1933 and subsequently, census day has been at or near the end of June because this time has fulfilled the condition mentioned and is otherwise suitable, being the end of a fiscal year and of a quarterly period used extensively for statistical purposes.

Scope of the census

The census covers the population of the Commonwealth and the dwellings in which it lives. The only persons excluded from Census results are:

(i) full-blood Aborigines, pursuant to Section 127 of the Constitution which specifically excludes them from the count of population (*see* page 206 for numbers of full-blood Aborigines enumerated at the census although not included in the population—plus an estimate of those not enumerated at the time of the census);

(ii) diplomatic representatives of other Governments and their families and staffs having diplomatic immunity in accordance with international practice.

Instructions to field staff determine how various fringe categories of persons are to be treated for census purposes. Broadly the principle is to record at the census babies born at or before midnight of census day and to exclude persons dying before midnight of census day. Travellers on ships in or between Australian ports at midnight of census day are also included.

For census purposes the Act defines a dwelling thus: ' "Dwelling" means a building, erection, or tenement, whether permanent or temporary, which is wholly or partly used for the purpose of human habitation and includes any ship or other vessel in any port of the Commonwealth or in any inland waters thereof, or any ship or vessel on a passage between any two Commonwealth ports'. Section 10 (2) provides that 'where a building is let, sub-let or held in different apartments and occupied by different persons or families, each part so let, sub-let, or held and used for the purpose of human habitation shall be deemed a dwelling'.

Measurable characteristics such as 'class' of dwelling, materials of outer walls, number of inmates in relation to number of rooms, facilities and rentals are recorded. At the 1966 census particulars were recorded for *ten* separate 'classes' of private dwellings and *sixteen* 'classes' of non-private dwellings.

The census data on occupied dwellings are obtained from the completed householder's schedules. However, census collectors are responsible for recording, from personal observations or inquiry, particulars also of dwellings which are unoccupied on census day, including those temporarily unoccupied or those used for 'holiday purposes'. Dwellings not recorded at the census are those occupied by accredited persons having diplomatic immunity and dwellings occupied solely by full-blood Aborigines.

The provisions of the Act place the responsibility for completing a householder's schedule upon the 'occupier of a dwelling'. The term 'occupier' is not defined beyond specifying certain officials in charge of public or charitable institutions who are to be included under this head. In practice, the responsibility, in the case of all private dwellings, is considered to rest with the head of the household occupying the dwelling.

Censuses have been taken in each of the External Territories of Australia concurrently with the Commonwealth census. These censuses, taken under the authority of the relevant Ordinances, cover the Territory of Papua and New Guinea, the Territory of Norfolk Island, the Territory of Nauru, the Territory of Cocos (Keeling) Islands, and the Territory of Christmas Island.

Commonwealth Parliamentary representation and the census

The *Representation Act* 1905–1964 provides:

'2. For the purpose of determining the number of Members of the House of Representatives to be chosen from time to time in the several States, the Chief Electoral Officer of the Commonwealth shall at the times and in the manner prescribed by this Act ascertain the numbers of people of the Commonwealth, and the numbers of the people of the several States.

'3. The day on which any Census of the people of the Commonwealth is taken shall be an Enumeration Day within the meaning of this Act.

'4. The numbers of the people shall be ascertained as on Enumeration Day in accordance with the following provisions:—

(*a*) The numbers of the people of each State, as shown by the Census, shall be taken.

(*b*) There shall be excluded from the reckoning the number of persons, who, by Section twenty-five or Section one hundred and twenty-seven of the Constitution are required not to be counted.

'5. All Statistical Officers of the Commonwealth . . . . . are hereby authorised and required to furnish to the Chief Electoral Officer all such statistical information as he requires to enable him to ascertain the numbers of people in accordance with this Act.

'6. The Chief Electoral Officer shall forthwith, after he has ascertained the numbers of the people in accordance with this Act, make and forward to the Minister a certificate setting forth the numbers of the people of the Commonwealth and of the several States as on Enumeration Day.'

After each census the Chief Electoral Officer requests the Commonwealth Statistician to supply the information required for the purposes of the Representation Act. From such information the Chief Electoral Officer prepares the requisite certificate and this is published in the Commonwealth Gazette.

PERSONAL PARTICULARS OBTAINED ON HOUSEHOLDER'S SCHEDULES(*a*) CENSUSES, 1911 TO 1966

(x indicates information obtained for census concerned)

PARTICULARS OBTAINED ON 1966 SCHEDULE

Particulars obtained	Census						
	1911	1921	1933	1947	1954	1961	1966
Name	x	x	x	x	x	x	x
Relationship to head of household	x	x	x	x	x	x	x
Sex	x	x	x	x	x	x	x
Age	x(*b*)	x(*bc*)	x(*b*)	x(*b*)	x(*b*)	x(*b*)	x(*d*)
Particulars as to marriage—							
Marital status	x	x	x	x	x	x	x
Duration of existing marriage	x(*e*)	x(*f*)	x	x	x	x	x
Family born to existing marriage (living or dead)	x(*g*)	x(*g*)	..	x	x	x	x
Religion (optional)	x	x	x	x	x	x	x
Birthplace	x	x(*h*)	x	x	x	x	x
Period of residence in Australia of persons born outside Australia	x(*i*)	x(*i*)	x	x	x	x	x
Nationality	x(*j*)	x	x	x	x	x	x
Race	x	x	x	x	x	x	x
Education—							
Standard of education	x(*k*)	x(*k*)	x(*k*)	..	..	..	x(*l*)
Attending school, university, etc.	x	x	x(*m*)	..	..	..	..
Persons not engaged in industry	x	x	x	x	x	x	x
Economic activity(*n*)—							
Status, occupation and industry—							
Occupational status	x	x	x(*o*)	x	x	x	x
Occupation	x	x	x	x	x	x	x
Industry	x(*p*)	x(*p*)	x	x	x	x	x
Place of work	..	..	..	..	x	x	x
Professional qualifications, trade training, etc.	..	..	..	..	..	x	x(*q*)
Usual hours worked per week	..	..	..	..	..	..	x

PARTICULARS NOT OBTAINED IN 1966 BUT OBTAINED AT A PREVIOUS CENSUS

Particulars obtained	1911	1921	1933	1947	1954	1961	1966
Dependent children (under 16 years of age)	..	x(*r*)	x	x	..	..	..
Blind, deaf and dumb	x	x	x	..	..	..	..
War service	..	..	x	..	..	..	..
Income	..	..	x	..	..	..	..
Orphanhood	..	..	x	..	..	..	..
Not at work(*n*)—							
Duration	x	x	x	x	x	x	..
Reason for not seeking work	..	x	x	x	x	x	..
Seeking work but not able to secure	..	x	x	x	x	x	..
Persons not engaged in industry	x	x	x	x	x	x	..
State or Territory of usual residence (if temporarily absent)	..	..	..	..	..	x	..

(*a*) The exact wording of questions has not remained constant from census to census. (*b*) Age last birthday. In 1911 age last birthday was requested only if date of birth was not known. (*c*) Also date of birth. (*d*) Age in years and completed months. (*e*) Date of existing marriage only. (*f*) Also date of existing marriage. (*g*) Also number of children (living or dead) from previous marriage. (*h*) Self; father and mother. (*i*) Also date of arrival. (*j*) British and foreign only. (*k*) Ability to read and write English, a foreign language, etc. (*l*) Highest level of schooling completed. (*m*) For subsequent Censuses, classified separately under 'Persons not engaged in industry' (*n*) The following questions, relating to employment and unemployment were asked at the 1966 census of all persons 15 years of age and over. Did the person have a job or business of any kind last week (even though he may have been temporarily absent from it)? Did the person do any work *at all* last week for payment or profit? Was the person temporarily laid off by his employer without pay for the *whole* of last week? Did the person look for work last week? (*o*) Apprentices shown separately. (*p*) Employer's occupation. (*q*) Also the institution at which obtained. (*r*) Under fourteen years.

PARTICULARS OF DWELLING OBTAINED ON HOUSEHOLDER'S SCHEDULES(*a*) CENSUSES, 1911 TO 1966

(x indicates information requested for census concerned)

Question	Census						
	1911	1921	1933	1947	1954	1961	1966
PARTICULARS OBTAINED ON 1966 CENSUS SCHEDULE							
Class of dwelling(*b*)	x	x	x	x(*c*)	x	x	x
Material of outer walls	x	x(*d*)	x	x(*d*)	x	x	x
Number of rooms(*e*)	x	x	x	x	x	x	x
Occupancy(*f*)	x	x	x	x	x	x	x
Weekly rent(*g*)	x	x	x	x	x	x	x
Facilities available—							
Gas	..	..	..	x	x	x	x
Electricity	..	..	..	x	x	x	x
Television set	..	..	..	..	..	x	x
Kitchen	..	..	..	..	x(*h*)	x(*h*)	x(*h*)
Bathroom	..	..	..	x(*h*)	x(*h*)	x(*h*)	x(*h*)
Date of building	..	..	..	x(*i*)	x(*j*)	x(*j*)	x(*j*)
Farm dwellings—							
On rural holding of one acre or more	..	..	..	..	x	x	x
Distance from post office (miles)	..	..	..	..	..	x	x
Size of rural holding	..	..	..	..	..	x	x
Motor vehicles at dwelling	..	..	..	..	..	..	x
PARTICULARS NOT OBTAINED IN 1966 BUT OBTAINED AT A PREVIOUS CENSUS							
Sleeping out—number of persons who sleep out throughout the year on verandahs (not enclosed sleep-outs)	..	..	x	x	..	..	..
Number of persons usually resident on the premises	..	x	..	..	..	..	..
Facilities available—							
Water supply—running water (do not include rain water tanks)	..	..	..	x	..	..	..
Flush toilet	..	..	..	x(*h*)	..	..	..
Laundry	..	..	..	x(*h*)	..	..	..
Cooking—							
Whether installed	..	..	..	x(*h*)	..	..	..
Means of cooking mostly used	..	..	..	x	..	..	..

(*a*) The exact wording of questions has not remained constant from census to census. (*b*) Private house, flat, tenement, hotel, boarding house, institution, etc. (*c*) From 1947 includes 'Shared house', etc.—the householder to answer questions only for that part of the house occupied by him. (*d*) Also roof. (*e*) Includes kitchen, and from 1933 permanently enclosed sleep-out, but excludes bathroom, pantry, laundry, etc. (*f*) Owner, tenant, etc., and from 1954, where rented from a governmental authority. (*g*) Unfurnished or estimated unfurnished rental value. From 1947 furnished and unfurnished rentals were shown separately. (*h*) If shared to be indicated. (*i*) Before 30 June 1933, or not. (*j*) Prior to preceding census and by years for intervening period.

The census schedule

The content of the householder's schedule used in the seven Commonwealth censuses 1911 to 1966 has not been subject to great variation. The questions asked have generally been those which are essential to provide a basic statistical framework of the characteristics of the population and dwellings of the Commonwealth of Australia. These questions have sought to serve both the general interest and the particular interests of those concerned in governmental policy making, in commerce and industry, and in demographic, social and economic research. While serving these local or national interests the need for international comparability has also been borne in mind when framing questions. The consistency in content of the householder's schedule is attributable in part to the mandatory questions included in accordance with the Census and Statistics Act and to the constitutional requirement to distinguish persons of Aboriginal race.

Conduct of the census

The arrangements made for the taking of a census of the Commonwealth resolve broadly into the following phases which, although apparently distinct, are in fact closely interrelated parts of a highly integrated system: determining the questionnaire and the form of the householder's schedule and personal slip and accompanying legislation and instructions; schematic arrangement of census divisions and census subdivisions and collector's districts; mapping; selection, organisation and instruction of field staff; supply and transmission throughout Australia of census materials; publicity; distribution and collection of householder's schedules and personal slips by census collectors; establishment of processing and tabulating centres, the return and processing of completed census material, and the origination of punched cards; tabulation and summarisation; presentation, analysis and interpretation of results.

During the period between censuses experienced census staff are engaged in the research, development and planning of all aspects of the census. Of prime importance is the content of the householder's schedule and the statistical tabulations which it is desired to obtain in order to meet the needs of users in government, business and research. In conformity with these aims, field procedures and instructions, processing instructions, training methods, publicity, and staffing standards are developed. As far as possible, field pre-tests are conducted prior to the census to check the adequacy of proposed methods and procedures.

Some years before the taking of the census, the preparation of field maps is commenced. Other preparations follow as the census day approaches, involving the printing and distribution of forms, instructions and code lists; recruitment, training and equipment of field staff; the establishment of a processing centre; and the selection and training of processing staff. The success of the enumeration depends in large measure on the quality and training of staff and the development of effective supervision and control.

The operations outlined in the following paragraphs relate to the most recent census procedures.

Field organisation

For the organisation and administration of census activities the States are divided into census divisions. Each internal Territory is also one division. Each division comprises a number of census subdivisions, further divided into collector's districts.

In the delineation of collector's district boundaries, the following criteria are relevant.

1. The area enclosed must not exceed the workload of one collector at the census period.
2. They must accommodate all State, Territorial and administrative boundaries.
3. Boundaries should be visible and easily followed by the collector.
4. They should preserve comparability with previous censuses.
5. They should conform to criteria currently in use in connection with the delimitation of urban boundaries.

For the census of 1921 and each subsequent census the organisation of the Commonwealth Electoral Office has been used as the basis of the census field organisation. The Chief Field Supervisor is appointed from the staff of the Census Division of the Commonwealth Bureau of Census and Statistics, but the Assistant Chief Field Supervisor and other senior supervisory field staff are appointed under the Census Regulations, in general from the staff of the Commonwealth Electoral Office.

Census divisions correspond closely with Commonwealth electoral divisions and each census division is controlled by an enumerator. Enumerators in each State are responsible to the Deputy Field Supervisor who is in charge of field operations in the particular State or Territory. Reporting to the enumerators are sub-enumerators, who are selected from a broad range of responsible public officials and private individuals, some four-fifths of whom were connected (at the 1966 Census) in some temporary or permanent way with the Electoral Office function.

The recruitment of census collectors is carried out by enumerators, often with the advice of sub-enumerators and in accordance with standards determined by the Bureau. Each collector enters into a contract of service and signs an undertaking of fidelity and secrecy. Special collectors for shipping, light-houses, certain public institutions, long-distance trains, coaches, and aircraft are also appointed.

The majority of persons connected with the field work of the census are employed temporarily and for very short periods, and, because of the long interval between censuses, many of them are without experience or knowledge of the work. It is necessary, therefore, that provision be made to enable census field staff to become acquainted with the objects and methods of the census. The basis of the instruction programme is a series of printed booklets, each containing instructions and general information for a particular level of the field staff, from collector to field supervisor. These booklets set out in detail the duties of the respective positions and contain instructions providing guidance for circumstances likely to arise. They may be supplemented by additional instructions for special circumstances, etc. Pre-census conferences at various levels are an established part of the preparations for the census. At these conferences the proposed householder's schedule and personal slip, the instructional booklets, administrative forms and all arrangements are discussed. Additionally, in 1966, an extensive collector training scheme was conducted using an instructional filmstrip. Post-census conferences are also held, and reports are made by various members of the field staff. From these emanate constructive and useful suggestions which are used in future census planning.

Mapping

After approval of the scheme of sub-division the next most important phase in the organisation of the Census is the preparation of the maps required for the field staff and central office control. Basic material for the census maps, together with aerial photographs where required for special reference and guidance, are obtained from the relevant State and semi-governmental authorities and private map publishers. Difficulty has always been experienced in obtaining suitable base maps for this work, especially in rural areas, and difficulties are encountered in delineating boundaries on maps which have not been revised or re-drawn for many years.

The overall mapping programme comprises production of (*a*) a map of census divisions for Australia as a whole; (*b*) a diagram map for each census division showing sub-division boundaries and local government area boundaries; (*c*) a detailed base map for each census subdivision showing boundaries of local government areas and collector's districts; and (*d*) a map of each collector's district which, together with a typed description of the boundary, is inserted in the collector's record book for reference by the collector in the conduct of his work.

In addition to the maps for the organisation and the taking of the census, drawings and associated masks required for printing the coloured maps used in connection with the presentation of tabulated data in census publications are also prepared.

Census material

The estimated number of householder's schedules and personal slips required for each census subdivision is based on the numbers of dwellings as estimated by the enumerators. An additional proportional allowance is incorporated as a safeguard against contingencies.

The quantities of other material required (e.g. instruction booklets, record books, compilation books, administrative forms, and equipment of various kinds) are also estimated by enumerators. Being closely related to known numbers of census divisions, subdivisions, or collector's districts, requirements can be assessed fairly accurately.

The printing and dispatch to the appropriate centres of householder's schedules, personal slips and envelopes for use with personal slips are organised and controlled by the Commonwealth Government Printer, Canberra. Other material, such as collectors' record books, collectors' compilation books, instruction booklets, administrative forms, posters, classifications and indexes of occupations and industries, labels, and tabulation forms, is printed by the Commonwealth Government Printer. Documents such as code lists and instructions for coding and checking are prepared on the Bureau's own reproduction equipment. Dispatch of this material is in general undertaken by the Census Office, Canberra.

Collectors' duties

The census collector's duties are confined principally to distributing householder's schedules (and personal slips if required) to all dwellings in his district before census day and collecting completed forms after census day. Each collector is supplied with a collector's record book (which contains a map of his district and a description of its boundary) for door-to-door use and a collector's compilation book for purposes of compiling early field count figures. When collecting householder's schedules and personal slips the collector is expected to account for all forms issued and to examine them to ensure completeness. It is also the collector's duty to help those who for any reason were unable personally to fill in the schedule or slip. On satisfying himself as to completeness, the collector inserts in the appropriate place on each schedule the number of persons of each sex in the dwelling concerned. These details, together with other required details, are later transferred into the collector's compilation book. This book forms an integral part of the census records and is used as the basis for early field counts, for subsequent checking and balancing, and as a reference for other census purposes.

Each collector, upon completion of his duties, returns all material to his sub-enumerator. After checking the completed forms, record book and compilation book for each collector's district in his subdivision in accordance with standard instructions designed to ensure accuracy and completeness of coverage, the sub-enumerator forwards them to his enumerator, who is responsible for checking that the material is complete for all collector's districts in his division before transmission to the processing centre.

Processing, tabulation and publication of Census results

For the purpose of processing the census schedules and other records for subsequent tabulation a census processing centre is established. To this is returned all the material from the field organisation after collection and checking. In the processing centre the completed schedules and slips are checked against collectors' records and then bound into book form to preserve their arrangement and to facilitate reference, handling and storage. From the bound books of schedules and slips, coding and the preparation of material for tabulating processes are carried out.

Tabulation of census data by means of punched card machines was first used at the 1921 census, and from that time there has been continuous technical improvement in the design, performance and range of application of the various types of equipment used at successive censuses. At the 1966 census, for the first time, computer equipment was used for an Australian census. A basic requirement for tabulation purposes is that the replies given to the questions on the census schedule should be subsequently converted into numerical form. For the 1966 census, as in previous censuses, code lists were prepared to enable replies not already given in numerical form to be so converted. The code list for each characteristic (personal or dwelling) is, in essence, a predetermined optimum arrangement of how the replies in relation to that characteristic can be tabulated for presentation in the census publications. Each category in a code list is numbered. Where necessary, a code list is supplemented (for coding purposes) by an index showing the code number to be used for each anticipated possible answer to the particular census question.

The scheme of publication adopted for the census is designed to provide for the earliest possible publication of results progressively as they became available. Preliminary and summarised results are published in mimeographed form; the detailed final results are published in a series of volumes, each comprising a number of parts (*see* below).

Census Regulations provide for the division of each State and Territory of the Commonwealth into census divisions, census sub-divisions and collector's districts for the purpose of 'the taking and the collection of the Census'. Neither the Act nor the Regulations specify the extent to which data obtained at the census are to be geographically dissected for presentation, but in all censuses the need to produce detailed statistics for local areas has been recognised. Census information is being published for the following categories for the 1966 census.

(i) local government areas;
(ii) metropolitan urban, other urban, rural, and migratory divisions of each State and Territory and of Australia as a whole;
(iii) statistical divisions, as used for many years in State statistical publications, and statistical districts, introduced for the first time in 1966 and representing stable regional boundaries of large towns with a regional population of over 100,000;
(iv) urban centres, defined under new criteria for the 1966 Census (*see* page 174);
(v) rural localities in which twenty or more dwellings or fifty or more persons were enumerated.

Detailed results of the censuses of the External Territories are published in a manner similar to those of the States and Internal Territories.

Final detailed results of the 1961 census of the Commonwealth were published in eight volumes, each comprising a number of parts which were published separately as soon as the relevant information became available. The parts and the volume for each State are uniform, but there is a different arrangement of the parts comprising the volume relating to the Territories and again in the volume relating to Australia. The order of volumes and parts is as follows.

Volume I, New South Wales;
Volume II, Victoria;
Volume III, Queensland;
Volume IV, South Australia;
Volume V, Western Australia;
Volume VI, Tasmania;
Volume VII, Territories;
Volume VIII, Australia.

Order of parts of State volumes

Part I—Analysis of Population in Local Government Areas and in Non-municipal Towns of 1,000 Persons or more;
Part II—Cross-classifications of the Characteristics of the Population;
Part III—Analysis of Dwellings in Local Government Areas and in Non-municipal Towns of 1,000 Persons or more;
Part IV—Cross classifications of the Characteristics of Dwellings and of Householders;
Part V—Population and Dwellings in Localities.

Order of parts of Volume VII—Territories

Part I—Northern Territory: Population;
Part II—Northern Territory: Dwellings and Householders;
Part III—Australian Capital Territory: Population;
Part IV—Australian Capital Territory: Dwellings and Householders;
Part V—External Territories: Population and Dwellings.

Order of parts of Volume VIII—Australia

Part I—Cross-classifications of the Characteristics of the Population;
Part II—Cross-classifications of the Characteristics of Dwellings and of Householders;
Part III—Population and Dwellings in Localities (with Geographical Co-ordinates).

Australian Life Tables 1960–1962—forming part of Volume VIII—Australia.

Statistician's Report—forming part of Volume VIII—Australia.

In addition to the published information, the 1961 Census tabulation programme yielded a considerable amount of detailed statistics which could not be accommodated within the limits set by the publications programme, and which is available on application.

Population recorded at censuses

State and Territorial populations recorded at the Australia-wide censuses taken over the period 1881 to 1966 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for the censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in the chapter Discovery, Colonisation and Federation of Australia (page 5). The total populations recorded at the censuses taken in the Colonies from 1828 to 1881 are shown in the table on page 163.

POPULATION, BY SEX: AUSTRALIAN CENSUSES, STATES AND TERRITORIES 1881 TO 1961

Census	N.S.W.	Vic.	Qld	S A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aust.
					MALES				
3 April 1881 .	410,211	451,623	125,325	146,183	17,062	61,162	3,347	..	1,214,913
5 April 1891 .	609,666	598,222	223,779	162,241	29,807	77,560	4,560	..	1,705,835
31 March 1901 .	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..	1,977,928
3 April 1911 .	857,698	655,591	329,506	207,358	161,565	97,591	2,734	992	2,313,035
4 April 1921 .	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567	2,762,870
30 June 1933 .	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805	3,367,111
30 June 1947 .	1,492,211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092	3,797,370
30 June 1954 .	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229	4,546,118
30 June 1961 .	1,972,909	1,474,395	774,579	490,225	375,452	177,628	16,206	30,858	5,312,252
30 June 1966p .	2,122,559	1,613,286	842,201	547,802	425,872	187,267	21,319	49,910	5,810,216
					FEMALES				
3 April 1881 .	339,614	409,943	88,200	130,231	12,646	54,543	104	..	1,035,281
5 April 1891 .	517,471	541,866	169,939	153,292	19,975	69,107	338	..	1,471,988
31 March 1901 .	644,841	597,350	221,126	177,861	71,249	82,851	595	..	1,795,873
3 April 1911 .	789,036	659,960	276,307	201,200	120,549	93,620	576	722	2,141,970
4 April 1921 .	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005	2,672,864
30 June 1933 .	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142	3,262,728
30 June 1947 .	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,813	3,781,988
30 June 1954 .	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086	4,440,412
30 June 1961 .	1,944,104	1,455,718	744,249	479,115	361,177	172,712	10,889	27,970	5,195,934
30 June 1966p .	2,108,544	1,604,546	819,039	542,921	409,698	183,950	15,847	46,003	5,730,548
					PERSONS				
3 April 1881 .	749,825	861,566	213,525	276,414	29,708	115,705	3,451	..	2,250,194
5 April 1891 .	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..	3,177,823
31 March 1901 .	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..	3,773,801
3 April 1911 .	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	1,714	4,455,005
4 April 1921 .	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
30 June 1933 .	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
30 June 1947 .	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905	7,579,358
30 June 1954 .	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	30,315	8,986,530
30 June 1961 .	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,928	10,508,186
30 June 1966p .	4,231,103	3,217,832	1,661,240	1,090,723	835,570	371,217	37,166	95,913	11,540,764

(a) Part of New South Wales prior to 1911.

Increase since 1901 census

The increases in the populations of the several States and Territories and of Australia as a whole during the last seven intercensal periods are shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION: INTERCENSAL INCREASES, STATES AND TERRITORIES 1901 TO 1966

State or Territory	1901–1911 (10 years)	1911–1921 (10 years)	1921–1933 (12¼ years)	1933–1947 (14 years)	1947–1954 (7 years)	1954–1961 (7 years)	1961–1966p (5 years)
NUMERICAL INCREASE							
New South Wales(*a*)	293,602	453,637	500,476	383,991	438,691	493,484	314,090
Victoria	114,481	215,729	288,981	234,440	397,640	477,772	287,719
Queensland	107,684	150,159	191,562	158,881	211,844	200,569	142,412
South Australia	50,212	86,602	85,789	65,124	151,021	172,246	121,383
Western Australia	97,990	50,618	106,120	63,628	137,291	96,858	98,941
Tasmania	18,736	22,569	13,819	29,479	51,674	41,588	20,877
Northern Territory	−1,501	557	983	6,018	5,601	10,626	10,071
A.C.T.(*b*)	..	858	6,375	7,958	13,410	28,513	37,085
Australia	**681,204**	**980,729**	**1,194,105**	**949,519**	**1,407,172**	**1,521,656**	**1,032,578**
PROPORTIONAL INCREASE—PER CENT							
New South Wales(*a*)	21.67	27.55	23.83	14.76	14.70	14.41	8.02
Victoria	9.53	16.40	18.87	12.88	19.35	19.48	9.82
Queensland	21.62	24.79	25.34	16.77	19.15	15.21	9.38
South Australia	14.01	21.20	17.33	11.21	23.38	21.61	12.52
Western Australia	53.22	17.94	31.89	14.50	27.32	15.14	13.43
Tasmania	10.86	11.80	6.46	12.95	20.10	13.47	5.96
Northern Territory	−31.20	16.83	25.42	124.08	51.54	64.52	37.17
A.C.T.(*b*)	..	50.06	247.86	88.95	79.33	94.06	63.04
Australia	**18.05**	**22.01**	**21.97**	**14.32**	**18.57**	**16 93**	**9.83**
AVERAGE ANNUAL RATE OF INCREASE—PER CENT							
New South Wales(*a*)	1.97	2.46	1.76	0.99	1.98	1.94	1.56
Victoria	0.91	1.53	1.42	0.87	2.56	2.58	1.89
Queensland	1.98	2.24	1.86	1.11	2.53	2.04	1.81
South Australia	1.32	1.94	1.31	0.76	3.05	2.83	2.39
Western Australia	4.36	1.66	2.29	0.97	3.51	2.03	2.55
Tasmania	1.04	1.12	0.51	0.87	2.65	1.82	1.16
Northern Territory	−3.67	1.57	1.87	5.93	6.12	7.37	6.53
A.C.T.(*b*)	..	4.14	10.71	4.65	8.70	9.93	10.27
Australia	**1.67**	**2.01**	**1.63**	**0.96**	**2.46**	**2.26**	**1.90**

(*a*) Includes Australian Capital Territory prior to 1911. (*b*) Part of New South Wales prior to 1911.
Minus sign (−) denotes decrease.

Growth and distribution of population

Growth of population

The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31 December in 1900 and thereafter at decennial intervals to 1960, and for each year from 1962 to 1966.

ESTIMATED POPULATION(*a*), BY SEX: STATES AND TERRITORIES DECEMBER 1900 TO 1966

At 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (*b*)	Aust.
MALES									
1900	716,047	601,773	274,684	180,349	110,088	89,763	4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2.296.308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	1,062	2,751,730
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940(*c*)	1,402 297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1950	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9.414	13,021	4,191,445
1960	1,951,907	1,453,815	766,448	483,802	372.665	180,511	14,785	29,140	5,253,073
1962(*d*)	2,019,141	1,511,023	789,592	501,705	390.176	181,046	17,007	36,448	5,446,138
1963(*d*)	2,044,992	1,540.184	804,626	512,896	401,023	183.266	18,458	40,319	5,545,764
1964(*d*)	2,076.065	1,573,232	819,364	527.092	410,738	184,962	19,700	43.970	5,655,123
1965(*d*)	2 109,350	1,601,171	835.007	541,984	420.772	186,370	20.868	48,293	5,763,815
1966(*e*)	2,139,329	1,627,685	848,522	552,407	432,939	188,411	21,969	51,935	5,863,197

For footnotes *see* next page.

ESTIMATED POPULATION(*a*), BY SEX: STATES AND TERRITORIES, DECEMBER 1900 TO 1966—*continued*

At 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (*b*)	Aust.
					FEMALES				
1900 .	644,258	594,440	219,163	176,901	69,879	83,137	569	..	1,788,347
1910 .	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920 .	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	910	2,659,567
1930 .	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1940*c* .	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1950 .	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1960 .	1,925,354	1,434,475	735,838	473,220	358,368	175,458	10,002	26,132	5,138,847
1962(*d*) .	2,000,266	1,499,107	763,283	493,786	376,209	176,973	11,616	33,096	5,354,336
1963(*d*) .	2,028,815	1,529,509	779,982	506,327	386,531	179,424	13,011	36,954	5,460,553
1964(*d*) .	2,061,171	1,562,896	795,448	521,266	395,562	181,392	14,209	40,552	5,572,496
1965(*d*) .	2,095,908	1,592,490	811,814	536,934	405,173	183,040	15,398	44,445	5,685,202
1966(*e*) .	2,127,163	1,619,793	826,274	547,915	417,161	185,273	16,537	48,027	5,788,143
					PERSONS				
1900 .	1,360,305	1,196,213	493,847	357,250	179,967	172,900	4,857	..	3,765,339
1910 .	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920 .	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	1,972	5,411,297
1930 .	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940*c* .	2,790,948	1,914,918	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1950 .	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1960 .	3,877,261	2,888,290	1,502,286	957,022	731,033	355,969	24,787	55,272	10,391,920
1962(*d*) .	4,019,407	3,010,130	1,552,875	995,491	766,385	358,019	28,623	69,544	10,800,474
1963(*d*) .	4,073,807	3,069,693	1,584,608	1,019,223	787,554	362,690	31,469	77,273	11,006,317
1964(*d*) .	4,137,236	3,136,128	1,614,812	1,048,358	806,300	366,354	33,909	84,522	11,227,619
1965(*d*) .	4,205,258	3,193,661	1,646,821	1,078,918	825,945	369,410	36,266	92,738	11,449,017
1966(*e*) .	4,266,492	3,247,478	1,674,796	1,100,322	850,100	373,684	38,506	99,962	11,651,340

(*a*) *See* text, page 161. (*b*) Part of New South Wales prior to 1911. (*c*) Includes all defence personnel enlisted in Australia irrespective of movement subsequent to enlistment. (*d*) Revised in accordance with preliminary (field count) results of 1966 population census; subject to further revision in accordance with final census results. (*e*) Based on preliminary (field count) results of 1966 population census; subject to revision.

The estimated population at 31 December each year from 1788 to 1946 was shown in *Demography*, Bulletin No. 67, 1949, and for the period 1886 to 1965 in *Demography*, Bulletin No. 83, 1965. A graph illustrating the growth of the population of Australia and of each State and Territory appears on plate 16, page 162.

Proportions of area and of population, density and masculinity

In the following table the proportions of the total area and of the total population represented by each State and Territory are given, together with the density and the masculinity of the population. Additional information regarding density and masculinity of population appears later in this chapter (*see* pages 181-2).

PROPORTIONS OF AREA AND OF POPULATION; DENSITY AND MASCULINITY OF POPULATION: STATES AND TERRITORIES, 30 JUNE 1966

State or Territory	Proportion of total area (per cent)	Proportion of census population, 30 June 1966(*a*) (per cent)			Density (*b*)	Masculinity(*c*)
		Males	Females	Persons		
New South Wales .	10.43	36.53	36.79	36.66	13.67	100.66
Victoria . .	2.96	27.77	28.00	27.88	36.61	100.54
Queensland . .	22.47	14.50	14.29	14.39	2.49	102.83
South Australia .	12.81	9.43	9.47	9.45	2.87	100.90
Western Australia .	32.88	7.33	7.15	7.24	0.86	103.95
Tasmania . .	0.89	3.22	3.21	3.22	14.07	101.80
Northern Territory .	17.53	0.37	0.28	0.32	0.07	134.53
Australian Capital Territory . .	0.03	0.86	0.80	0.83	102.14	108.49
Australia . .	100.00	100.00	100.00	100.00	3.89	101.39

(*a*) Based on preliminary 1966 census figures. (*b*) Number of persons per square mile. (*c*) Number of males per 100 females.

Urban and rural distribution

In previous censuses *metropolitan and other urban* boundaries were delineated without common criteria, but for the 1966 census a new uniform concept of *urban*, based on a minimum population density of 500 persons per square mile, was introduced. Other new criteria concerned land use, continuity of dwellings, enclaves, and unoccupied dwellings in holiday areas. No account is taken of administrative boundaries in delineating these urban centres.

Because of practical difficulties (notably lack of time to carry out an extensive examination of each area in order to re-design suitable collector's districts and the absence of suitable topographic boundaries around small towns) the new criteria have at present been uniformly applied only to urban centres within the capital city statistical divisions and the statistical districts (*see* below), to other urban centres with a population of 30,000 or more, and to a few smaller centres (Katoomba-Wentworth Falls, Lawson-Hazelbrook, and urban centres in the Shires of Wyong and Gosford in New South Wales, Moe-Yallourn in Victoria, Cairns in Queensland, and Kalgoorlie in Western Australia). It is proposed to extend the application of the new criteria to smaller centres in future censuses.

Briefly the new criteria are as follows.

(1) Population clusters of 1,000 or more persons having a minimum density of 500 persons per square mile shall be designated '*urban*'. This density shall be determined for each census collector's district (the smallest geographical area available). Additionally, some areas of lower population and/or density shall be classified as '*urban*' on other grounds (e.g. holiday areas, industrial areas).

(2) Around each principal urban centre with a population of 75,000 or more *two* boundaries shall be drawn. The *outer* boundary shall circumscribe the area which is expected to be in close economic and social contact with the principal urban centre for the next two or three decades. These areas shall be designated STATISTICAL DIVISIONS (for State capital cities) or STATISTICAL DISTRICTS (for Canberra, Newcastle, Wollongong, and Geelong). The *inner* boundary shall delimit the principal urban centre itself. It shall be a *moving* boundary, which from census to census, as urbanisation proceeds, will move outwards to encompass peripheral development. For capital cities the principal urban centre encompassed by the inner boundary shall be designated the METROPOLITAN AREA.

(3) Urban centres of less than 75,000 population shall be described by name as URBAN.

For urban centres *not* yet delimited by the new criteria, this procedure was used: urban centres were intensively examined on the most recent aerial photographs available and the boundaries set as closely as possible to the periphery of the built-up area without regard to local government boundaries. The greater availability of recent aerial photographs in 1966 than in 1961 enabled more meaningful boundaries to be delineated for many small urban centres.

Census field count statement No. 4, *Population, Principal Urban Centres of Australia* contains an appendix in which are expounded the full criteria now being applied.

Rural population comprises the inhabitants of the remaining portions of each State or Territory. The term *migratory* used in the following tables refers to persons not elsewhere enumerated who at midnight on 30 June 1966 were on ships in Australian waters or were travelling on long-distance trains, motor coaches or aircraft.

URBAN AND RURAL POPULATIONS(*a*): STATES AND TERRITORIES
CENSUS, 30 JUNE 1966 p

Division	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS									
Urban—									
Metropolitan	2,444,735	2,108,499	719,140	726,930	499,494	119,415	..	92,199	6,710,412
Other . .	1,210,791	642,306	557,207	173,588	140,421	141,476	28,521		2,894,310
Rural . .	568,109	463,449	384,052	189,026	193,028	109,659	8,189	3,714	1,919,226
Migratory .	7,468	3,578	841	1,179	2,627	667	456	..	16,816
Total .	**4,231,103**	**3,217,832**	**1,661,240**	**1,090,723**	**835,570**	**371,217**	**37,166**	**95,913**	**11,540,764**
PERCENTAGES									
Urban—									
Metropolitan	57 78	65.53	43 29	66 65	59.78	32.17	..	96 13	58 14
Other . .	28 61	19 96	33 54	15 91	16 81	38.11	76.74	.	25 08
Rural . .	13 43	14.40	23 12	17 33	23.10	29.54	22.03	3 87	16 63
Migratory .	0.18	0.11	0 05	0.11	0 31	0.18	1.23	..	0.15
Total .	**100 00**	**100.00**	**100 00**	**100 00**	**100.00**	**100 00**	**100.00**	**100 00**	**100 00**

(*a*) *See* letterpress preceding this table for explanation of urban, rural, etc.

Statistical divisions, statistical districts and principal urban centres

The following table shows the population of statistical divisions, statistical districts and principal urban centres with a population of 6,000 persons or more (as defined on page 174) in each State and Territory of Australia at 30 June 1966.

POPULATION(a) OF STATISTICAL DIVISIONS, STATISTICAL DISTRICTS AND PRINCIPAL URBAN CENTRES: STATES AND TERRITORIES, CENSUS, 30 JUNE 1966

Urban centre, etc.	Population	Urban centre, etc.	Population	Urban centre, etc.	Population
NEW SOUTH WALES		VICTORIA		SOUTH AUSTRALIA	
Sydney Statistical Division—		Melbourne Statistical Division –		Adelaide Statistical Division—	
Metropolitan area	2,444,735	Metropolitan area	2,108,499	Metropolitan area	726,930
Remainder	94,892	Remainder	120,012	Remainder	43,698
Total	*2,539,627*	*Total*	*2,228,511*	*Total*	*770,628*
Newcastle Statistical District—		Geelong Statistical District—		Whyalla	22,126
Urban Newcastle	233,967	Urban Geelong	104,974	Mount Gambier	17,146
Remainder	93,536	Remainder	6,304	Port Pirie	15,549
Total	*327,503*	*Total*	*111,278*	Reynella–Port Noarlunga(g)	11,775
Wollongong Statistical District—		Ballarat	56,304	Port Augusta	10,128
Urban Wollongong	162,835	Bendigo	42,191	Port Lincoln	8,867
Remainder	15,265	Moe–Yallourn	23,205	Gawler(g)	6,643
Total	*178,100*	Shepparton	17,523	WESTERN AUSTRALIA	
Albury–Wodonga(b)	32,019	Warrnambool	17,497	Perth Statistical Division—	
Broken Hill	30,001	Morwell	16,578	Metropolitan area	499,494
Wagga Wagga	25,939	Wangaratta	15,167	Remainder	58,803
Maitland(c)	23,105	Traralgon	14,080	*Total*	*558,297*
Orange	22,200	Mildura	12,931	Kalgoorlie–Boulder	19,892
Tamworth	21,682	Horsham	10,557	Bunbury	15,453
Goulburn	20,849	Hamilton	10,052	Geraldton	12,118
Lismore	19,740	Dromana–Sorrento	9,899	Albany	11,417
Bathurst	17,220	Colac	9,497	Collie	7,616
Woy Woy–Umina	16,264	Sale	8,648	Northam	7,392
Grafton	15,944	Ararat	8,237	TASMANIA	
Dubbo	15,568	Werribee	8,231	Hobart Statistical Division—	
Cessnock–Bellbird(c)	15,329	Benalla	8,213	Metropolitan area	119,415
Armidale	14,990	Echuca–Moama(f)	8,014	Remainder	21,823
Glenbrook–Faulconbridge(d)	13,722	Bairnsdale	7,785	*Total*	*141,238*
Lithgow	13,167	Maryborough	7,694	Launceston	60,453
Queanbeyan(e)	12,489	Swan Hill	7,376	Burnie–Somerset	18,028
Kurri Kurri–Weston(c)	11,562	Mornington–Balcombe	7,349	Devonport	14,848
Gosford	11,312	Castlemaine	7,082	Ulverstone	6,849
Taree	10,559	Warragul	6,843	NORTHERN TERRITORY	
Katoomba–Wentworth Falls	10,513	Portland	6,674	Darwin	20,261
Richmond-Windsor(d)	9,914	QUEENSLAND		Alice Springs	6,001
Nowra-Bomaderry	9,642	Brisbane Statistical Division—		AUSTRALIAN CAPITAL TERRITORY	
Griffith	9,510	Metropolitan area	719,140	Canberra Statistical District—	
The Entrance	9,109	Remainder	58,795	Metropolitan area	92,199
Cooma	9,101	*Total*	*777,935*	Remainder	14,796
Casino	8,498	Townsville	56,687	*Total*	*106,995*
Parkes	8,431	Gold Coast(f)	53,044		
Inverell	8,411	Toowoomba	52,120		
Kempsey	8,173	Rockhampton	45,349		
Moree	7,774	Cairns	29,185		
Coff's Harbour	7,685	Bundaberg	25,404		
Gunnedah	7,522	Mackay	24,566		
Forbes	7,370	Maryborough	20,381		
Murwillumbah	7,304	Mount Isa	16,713		
Port Macquarie	7,090	Gladstone	12,372		
Cowra	7,082	Gympie	11,277		
Toukley–Gorokan–Budgewoi	6,658	Warwick	10,087		
Muswellbrook	6,288	Dalby	8,870		
Deniliquin	6,269	Ayr	8,668		
Cootamundra	6,207	Charters Towers	7,533		
Singleton	6,187	Innisfail	7,419		
		Nambour	6,211		
		Roma	6,000		

(a) Preliminary. (b) Includes part of urban centre in Victoria. (c) Included in Newcastle Statistical District—Remainder. (d) Included in Sydney Statistical Division—Remainder. (e) Included in Canberra Statistical District—Remainder. (f) Includes part of urban centre in New South Wales. (g) Included in Adelaide Statistical Division—Remainder.

Principal incorporated cities and towns

The following table shows the population of the principal incorporated cities and towns with a population of 6,000 or more in each State and Territory of Australia at 30 June 1966. The figures relate to areas delimited for local government or other administrative purposes, and differ in some cases from figures shown in the table on page 175 which are based on the new census concept of 'urban' (*see* page 174).

POPULATION OF PRINCIPAL INCORPORATED CITIES AND TOWNS: STATES AND TERRITORIES, CENSUS 30 JUNE 1966 p

City or town	Persons	City or town	Persons	City or town	Persons
NEW SOUTH WALES		VICTORIA		QUEENSLAND—*cont.*	
		Melbourne	(*a*)	Gympie	11,277
Sydney	(*a*)	Ballaarat	41,650	Warwick	10.087
Greater Wollongong	150,208	Bendigo	30.792	Dalby	8,870
Newcastle	143,061	Geelong	18.138	Charters Towers	7.533
Greater Cessnock	34,517	Shepparton	17,504	Roma	6,000
Blue Mountains	30,718	Warrnambool	17.497		
Broken Hill	30,023	Geelong West	17,446	SOUTH AUSTRALIA	
Maitland	28,424	Moe	16,544	Adelaide	(*a*)
Wagga Wagga	25,939	Wangaratta	15,167	Whyalla	22.126
Albury	25,212	Traralgon	14.080	Mount Gambier	17,146
Shellharbour	22.028	Mildura	12,931	Port Pirie	13,947
Tamworth	21,682	Newtown and Chilwell	11,700	Port Augusta	10,128
Orange	21,000	Horsham	10,557	Port Lincoln	8,867
Goulburn	20,849	Hamilton	10,052	Renmark	6,285
Lismore	19,740	Colac	9,497		
Bathurst	17.220	Sale	8,648	WESTERN AUSTRALIA	
Grafton	15,944	Ararat	8,237		
Dubbo	15.568	Benalla	8,213	Perth	(*a*)
Armidale	14,990	Maryborough	7,694	Bunbury	15,453
Windsor	13,275	Swan Hill	7,376	Geraldton	12,118
Lithgow	12,813	Castlemaine	7,082	Albany	11,417
Queanbeyan	12,489	Echuca	7,046	Kalgoorlie	9,163
Taree	10,559	Portland	6,674	Northam	7,392
Cooma	9,101				
Camden	8,657			TASMANIA	
Casino	8,498				
Parkes	8,431	QUEENSLAND		Hobart	(*a*)
Inverell	8,411			Launceston	37,210
Kempsey	8,173	Brisbane	(*a*)		
Moree	7,774	Townsville	58,760	NORTHERN TERRITORY	
Gunnedah	7,522	Toowoomba	55,774		
Forbes	7,370	Gold Coast	49,338	Darwin City	17,910
Port Macquarie	7.090	Rockhampton	46,052		
Cowra	7.082	Cairns	26.555		
Muswellbrook	6,288	Bundaberg	25.404	AUSTRALIAN CAPITAL TERRITORY	
Deniliquin	6,269	Maryborough	19,647		
Cootamundra	6,207	Mackay	18.637		
Singleton	6,187	Gladstone	12,372	Canberra City	93,197

(*a*) *See* table on page 175. The capital city (metropolitan area) population in each State comprises the populations of a number of separately incorporated local government areas and/or parts of local government areas.

A table showing the aggregate urban population at the 1961 census of all cities and towns outside the metropolitan area of each State with 2,000 or more, and 3,000 or more, urban inhabitants was given in Year Book No. 51, page 267. A table showing similar data for the 1954 census was given in Year Book No. 47, page 295 and one for the 1947 census in Year Book No. 40, page 334. Comparisons between these various tables can be made only if allowance is made for changes in the status and structure of local government areas and for changes in the manner of determining urban population at each census.

Principal cities of the world

The following table shows the population of the world's largest cities at the latest available date. Since the way in which cities are delimited differs from country to country, the table shows data for the urban agglomeration, if such exists, as well as data for the so-called city proper. The urban agglomeration is defined in the United Nations *Demographic Yearbook* 1965 (page 20), from which most of the figures in the table have been taken, as the suburban fringe or thickly settled territory lying outside of, but adjacent to, city boundaries. (*See also* the Technical Notes on Statistical Tables and footnotes to the table in the *Demographic Yearbook*.)

POPULATION OF THE WORLD'S LARGEST CITIES

City	Country	Year	Population ('000)	
			City proper	Urban agglomeration
New York	U.S.A.	1964	7,989	(a) 11,260
Tokyo	Japan	1965	8,901	10,634
London	England	1964	3,185	8,187
Paris	France	1962	2,790	7,369
Buenos Aires	Argentina	1960	2,967	7,000
Shanghai	China	1957	6,900	..
Los Angeles	U.S.A.	1964	..	6,674
Chicago	U.S.A.	1964	..	6,591
Moscow	U.S.S.R.	1965	6,366	6,423
Bombay	India	1965	4,654	..
Calcutta	India	1965	3,026	4,642
Philadelphia	U.S.A.	1964	2,047	(a) 4,617
Peking	China	1957	4,010	..
Detroit	U.S.A.	1964	..	(a) 3,914
Leningrad	U.S.S.R.	1965	3,329	3,641
Cairo	United Arab Republic	1962	3,518	..
Seoul	Korea	1964	3,424	..
Rio de Janeiro	Brazil	1960	3,223	..
Tientsin	China	1957	3,220	..
Mexico City	Mexico	1965	3,193	..
Boston	U.S.A.	1964	..	3,177
Sao Paulo	Brazil	1960	3,165	..
Osaka	Japan	1965	..	(b) 3,156
Djakarta	Indonesia	1961	2,907	..
San Francisco	U.S.A.	1964	731	2,894
Delhi	India	1965	2,369	2,712
Madrid	Spain	1964	..	2,559
Sydney	Australia	1966	..	(c) 2,540
Manchester	England	1964	645	2,449
Rome	Italy	1964	..	2,417
Shenyang (*d*)	China	1957	2,411	..
Birmingham	England	1964	1,106	2,384
Pittsburgh	U.S.A.	1964	..	(a) 2,368
Washington	U.S.A.	1964	795	(a) 2,323
Teheran	Iran	1963	2,317	..
Montreal	Canada	1964	..	2,260
Melbourne	Australia	1966	..	(c) 2,229
St Louis	U.S.A.	1964	700	(a) 2,203
West Berlin (*e*)	Germany	1965	2,202	..
Santiago	Chile	1964	..	2,184
Wuhan	China	1957	2,146	..
Chungking	China	1957	2,121	..
Toronto	Canada	1964	..	1,989
Cleveland	U.S.A.	1965	811	1,958
Nagoya	Japan	1965	..	(b) 1,935
Budapest	Hungary	1964	1,928	..
Karachi	Pakistan	1961	1,913	..
Madras	India	1965	1,865	..
Hamburg	Germany	1964	1,857	..
Athens	Greece	1961	628	1,853
Canton	China	1957	1,840	..
Baltimore	U.S.A.	1964	942	(a) 1,829
Singapore	Singapore	1964	1,820	..
Glasgow	Scotland	1964	1,019	(f) 1,802

(*a*) 'Standard metropolitan statistical area' as defined in 1965. (*b*) Provisional. (*c*) Statistical Division. Population of metropolitan areas are: Sydney, 2,444,735. Melbourne, 2,108,499. (*d*) Formerly Mukden. (*e*) East Berlin, year 1964, population of city proper, 1,071,462. (*f*) 1961.

Mean population

Mean populations are calculated for twelve-month periods to provide a satisfactory average basis for calculations requiring allowance for the continuous change in population figures during such periods. From 1901 onwards the mean population for any year has been calculated by the formula:

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where a, b, c, d and e, respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g. in the case of a calendar year, 31 December of the preceding year, and 31 March, 30 June, 30 September and 31 December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values a, b, c, d, and e.

The following tables show the mean populations for the calendar and financial years 1957 to 1966.

MEAN POPULATION(*a*): CALENDAR YEARS, STATES AND TERRITORIES 1957 TO 1966

Year ended 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1957 . .	3,624,311	2,656,363	1,408,732	874,201	687,448	328,435	20,620	37,999	9,638 109
1958 . .	3,696,049	2,717,371	1,436,156	896,987	699,915	335,382	21,746	41 110	9,844,716
1959 . .	3,762,339	2,783,951	1,464,469	921,106	711,737	341,423	23,623	46,618	10,055,266
1960 . .	3,834,085	2 857,032	1,491,114	944,861	722,900	346,913	25,107	52,562	10,274,574
1961(*b*) .	3,913,896	2,926,032	1,516,273	970,090	737,568	353,623	26,266	58,852	10,502,600
1962(*b*) .	3,984,327	2,983,022	1,541,711	985,321	755,583	355,638	28,137	66,179	10,699 918
1963(*b*) .	4,046,781	3,040,308	1,567,908	1,007,541	777,361	360,501	30,105	73,298	10,903,803
1964(*b*) .	4,105,149	3,104,112	1,599,537	1,034,127	796,717	364,420	32,901	80,497	11,117,460
1965(*b*) .	4,171,328	3,163,589	1,631,884	1,063,075	814,409	367,793	35,152	88,399	11,335 629
1966(*b*) .	4,233,813	3,219,056	1,661,389	1,090,357	836,345	371,417	37,298	96,473	11,546,148

MEAN POPULATION(*a*): FINANCIAL YEARS, STATES AND TERRITORIES 1956–57 TO 1965–66

Year ended 30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1957 . .	3,589,128	2,625,609	1,394,088	861,410	680,949	324,666	19,915	36,749	9,532,514
1958 . .	3,660,738	2,687,115	1,422,349	886,021	693,568	332,046	21,239	39,283	9,742,359
1959 . .	3,729,030	2,749,994	1,450,535	908,354	705,869	338,628	22,507	43,429	9,948,346
1960 . .	3,796,452	2,819,650	1,478,129	933,619	717,316	344,111	24,573	50,013	10,163,863
1961 . .	3,875,921	2,893,417	1,503,703	957,136	729,770	350,077	25,673	55,232	10,390,929
1962(*b*) .	3,950,278	2,956,296	1,530,516	976,897	745,400	353,152	27,593	62,673	10,602,805
1963(*b*) .	4,017,814	3 010,919	1,553,380	995,759	766,546	358,112	28,905	69,557	10,800,992
1964(*b*) .	4,074,984	3,072,030	1,584,157	1,020,285	787 485	362,648	31,588	76,963	11,010,140
1965(*b*) .	4,137 678	3,134,526	1,615,229	1,048,514	805,327	366,210	33,981	84,395	11,225,860
1966(*b*) .	4,203,872	3,191,835	1,647,472	1,077,826	824,984	369,401	36,224	92,564	11 444,178

(*a*) Population estimates subsequent to the 1961 census are based on a method which omits holiday, business or other short-term movements between States and Territories. As a consequence, marked quarterly seasonal movements in some States due to interstate holiday movements are reflected in the mean population figures for the States prior to 1962 (and 1961–62) but not in those for 1962 (1961–62) and subsequent years. (*b*) The populations on which these mean populations are based are subject to further revision in accordance with the final results of the 1966 census.

Elements of increase

The two factors which contribute to the growth of a population are 'natural increase', i.e. the excess of births over deaths, and 'net migration', i.e. the excess of arrivals over departures. The 'total increase' of the population is obtained by combining natural increase with the increase by net migration. However, comparison of the total increase so obtained with that derived by subtracting the population recorded at one census from that recorded at the next census reveals differences which can be attributed partly to differences in the coverage of the census enumerations, and partly to deficiencies in the records of the elements of increase.

Elements of increase, 1941 to 1966

In the following table particulars are given of the elements of increase for each five-year period from 1941 to 1965 and for each of the years 1962 to 1966.

POPULATION: ELEMENTS OF INCREASE, BY SEX AUSTRALIA, 1941 TO 1966

Period	Natural increase (*a*)	Net migration (*b*)	Intercensal adjustment (*c*)	Total increase
MALES				
1941–45 . .	142,605	5,325	3,428	151,358
1946–50 . .	255,335	217,728	−3,484	469,579
1951–55 . .	287,685	240,481	−5,794	522,372
1956–60 . .	328,616	214,210	−3,570	539,256
1961–65 . .	331,032	200,463	−20,753	510,742
1962 . .	69,732	28,620	−4,515	93,837
1963 . .	67,924	36,219	−4,517	99,626
1964 . .	61,816	52,058	−4,515	109,359
1965 . .	58,696	54,511	−4,515	108,692
1966 . .	56,735	44,906	(*d*)	99,382
FEMALES				
1941–45 . .	195,073	2,484	3,696	201,253
1946–50 . .	274,112	135,356	−1,763	407,705
1951–55 . .	312,017	173,343	−3,388	481,972
1956–60 . .	351,241	190,812	−1,214	540,839
1961–65 . .	356,400	199,425	−9,470	546,355
1962 . .	74,186	33,902	−2,082	106,006
1963 . .	72,871	35,426	−2,080	106,217
1964 . .	66,739	47,284	−2,080	111,943
1965 . .	64,443	50,345	−2,082	112,706
1966 . .	61,962	42,020	(*d*)	102,941
PERSONS				
1941–45 . .	337,678	7,809	7,124	352,611
1946–50 . .	529,447	353,084	−5,247	877,284
1951–55 . .	599,702	413,824	−9,182	1,004,344
1956–60 . .	679,857	405,022	−4,784	1,080,095
1961–65 . .	687,432	399,888	−30,223	1,057,097
1962 . .	143,918	62,522	−6,597	199,843
1963 . .	140,795	71,645	−6,597	205,843
1964 . .	128,555	99,342	−6,595	221,302
1965 . .	123,139	104,856	−6,597	221,398
1966 . .	118,697	86,926	(*d*)	202,323

(*a*) Excess of births registered over deaths registered. For Sept. 1939 to June 1947, deaths of defence personnel, whether overseas or in Australia, included. (*b*) Excess of arrivals over departures. Excludes troop movements for the period September 1939 to June 1947. (*c*) Adjustment of population on the basis of the final results of the 1947, 1954 and 1961 censuses and the preliminary results of the 1966 census. (*d*) For periods subsequent to the census of 30 June 1966 the intercensal adjustment will not be known until after the next census has been taken.

Analysis of intercensal increase, 30 June 1961 to 30 June 1966

As stated on page 161 of this chapter, complete records of interstate migration are not available. For this reason the differences between the estimated populations and those recorded at the census of 30 June 1966, i.e. the intercensal adjustments, were substantial for some States.

POPULATION: ANALYSIS OF INTERCENSAL INCREASE, STATES AND TERRITORIES, 30 JUNE 1961 TO 30 JUNE 1966

State or Territory	Population at 30 June 1961(*a*)	Natural increase(*b*)	Net migration (*c*)	Total recorded increase	Intercensal adjustment (*d*)	Population at 30 June 1966(*a*)
PERSONS						
New South Wales . .	3,917,013	220,201	107,462	327.663	−13,573	4,231,103
Victoria	2,930,113	189,372	114,843	304,215	−16,496	3.217,832
Queensland . . .	1,518,828	105,995	30.687	136.682	+ 5,730	1,661,240
South Australia . . .	969,340	62,780	58,981	121,761	− 378	1,090,723
Western Australia . .	736,629	53,122	52,133	105,255	− 6,314	835,570
Tasmania	350,340	26,490	− 3,941	22,549	− 1,672	371,217
Northern Territory . .	27.095	3,739	4,570	8,309	+ 1,762	37,166
Australian Capital Territory	58,828	8,380	30,750	39,130	− 2,045	95,913
Australia . . .	**10,508,186**	**670,079**	**395,485**	**1,065,564**	**−32,986**	**11,540,764**

(*a*) Census. (*b*) Excess of births registered over deaths registered. (*c*) Excess of arrivals over departures for recorded interstate and overseas migration. (*d*) Adjustment of population on the basis of the preliminary results of the census of 30 June 1966.

Rate of population growth

In the following two tables natural increase refers to the excess of births over deaths (including deaths of Australian defence personnel), net migration refers to excess of overseas arrivals over departures excluding overseas movement of defence personnel for the period September 1939 to June 1947, and total increase is the sum of natural increase and net migration together with differences disclosed by results of population censuses up to 30 June 1966.

Annual rates of natural increase, net migration and total increase, for single years, represent the increase during the year expressed as a proportion (per cent) of the population at the beginning of the year. These rates are slightly higher than those calculated as a proportion (per cent) of the mean population for the year.

Average annual rates of increase for periods greater than one year have been calculated in the following manner.

The average annual rate of total increase is computed by the formula:

$$P_t = P_0 \ (1+r)^t$$

where P_0 and P_t are the populations at the beginning and end respectively of a t-year period and r is the average annual rate of growth.

The average annual rate of natural increase and net migration is computed by dividing the average annual rate of total increase between its components in proportion to the fraction of total increase due to each component during the period. Differences between the sum of the rates of natural increase and of net migration and the rate of total increase are due to the intercensal adjustment.

POPULATION: ANNUAL RATE OF GROWTH, AUSTRALIA 1941 TO 1966

(Per cent)

Period	Natural increase	Net migration	Total increase
Average annual rate—			
1941–45	0.94	0.02	0.98
1946–50	1.36	0.91	2.26
1951–55	1.38	0.95	2.31
1956–60	1.40	0.83	2.22
1961–65	1.27	0.74	1.96
Annual rate—			
1962	1.36	0.59	1.89
1963	1.30	0.66	1.91
1964	1.17	0.90	2.01
1965	1.10	0.93	1.97
1966	1.04	0.76	1.77

The average annual rate of population growth during the present century has been 1.72 per cent, but the results from year to year have deviated widely from this figure. In the following table the period 1 January 1901 to 31 December 1966 has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population.

POPULATION: PERIODICAL RATES OF GROWTH, AUSTRALIA 1901 TO 1966

Period	Interval (years)	Total increase ('000)	Average annual numerical increase ('000)	Average annual rate of population growth (per cent)		
				Natural increase	Net migration	Total
1901 to 1913 . .	13	1,128	87	1.55	0.49	2.04
1914 to 1923 . .	10	862	86	1.49	0.15	1.64
1924 to 1929 . .	6	680	113	1.26	0.62	1.88
1930 to 1939 . .	10	569	57	0.82	0.02	0.85
1940 to 1946 . .	7	513	73	0.98	0.01	1.01
1947 to 1952 . .	6	1,222	204	1.37	1.19	2.54
1953 to 1960 . .	8	1,652	207	1.39	0.81	2.19
1961 to 1966 . .	6	1,259	210	1.23	0.74	1.92

Rates of population growth from 1886 are shown for each State and Territory of Australia in the annual bulletin, *Demography*. Estimated rates of growth of the population of Australia in comparison with those for other countries of the world for the years 1958–1963 are shown in the table on pages 208–9.

Density

From certain aspects, population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,967,909 square miles and a population at the census of 30 June 1966 of 11,540,764, excluding full-blood Aborigines, has a density of only 3 89 persons to the square mile, and is, therefore, one of the most sparsely populated countries of the world. For other continents and sub-continents, the densities in 1964 were approximately as follows: Europe (excluding U.S.S.R.), 231; Asia (excluding U.S.S.R.), 168; Latin America, 31; U.S.S.R., 26; Africa, 26; and Northern America, 26. The population density of Australia in 1964 was 3.75, about one-seventh of that of Northern America, of Africa and of the U.S.S.R.; about one-eighth of that of Latin America; about one-forty-fourth of that of Asia (excluding U.S.S.R.); and about one sixty-third of that of Europe (excluding U.S.S.R.).

Because of the large area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 3.89 in 1966. The rise in density from 1901 to 1966 in each State and Territory was: New South Wales 4.45 to 13.67, Victoria 13.77 to 36.61, Queensland 0.76 to 2.49, South Australia 0.95 to 2.87, Western Australia 0.20 to 0.86, Tasmania 6.68 to 14.07, Northern Territory 0 01 to 0.07, and Australian Capital Territory 2.05 (in 1911) to 102.14. When comparing the density of population of the several States, consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The proportion of the area of Australia receiving less than 10 inches of rainfall is 39 per cent.; that of the various States is: New South Wales, 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; and Tasmania, nil.

The number and density of population of the principal countries and continental groups of the world are shown in the tables on pages 207–9.

General characteristics of the population

Particulars of the characteristics of the population of Australia at the 1961 census compared with the 1954 census are shown in this section, and for the individual States and Territories at the 1961 census in Year Book No. 49 (*see* pp. 317–35). Such figures as are available for the 1966 census are included in the Appendix. Information concerning the industry, occupational status and occupations of the population as recorded at the 1961 census is given in the chapter Employment and Unemployment, and on dwellings and householders in the chapter Housing and Building.

Sex distribution

The number of males to each hundred females has been adopted as a measure of the 'masculinity' of the population. The masculinity of the population of each of the States may be obtained for each year from 1796 to 1907 from the table on pages 163–5 of Year Book No. 2 and for the years 1900 to 1910 from the table on page 123 of Year Book No. 5.

With the exception of some dislocation arising from the two World Wars. there was a continuous diminution of the masculinity of the population until 1945. This resulted from the increasing proportion of the population in the higher age groups, in which females preponderate owing to their greater longevity, and the general long-term fall in the birth rate. At the 1947 census the numbers of the sexes were practically equal, but during the following decade there was an increase in masculinity owing to the greater number of males as compared with females in net overseas migration, and the recovery of the birth rate in the post-war period from the low levels of the 1930s. In more recent years, however, the trend has declined again.

POPULATION: MASCULINITY, STATES AND TERRITORIES DECEMBER 1900 TO 1966

(Number of males per 100 females)

At 31 December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1900 . . .	111.14	101.23	125.33	101.95	157.54	107.97	753.60	(*a*)	110.55
1910 . . .	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(*a*)	107.87
1920 . . .	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1930 . . .	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1940 . . .	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1950 . . .	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1960 . . .	101.38	101.35	104.16	102.24	103.99	102.88	147.82	111.51	102.22
1962 . . .	100.94	100.79	103.45	101.60	103.71	102.30	146.41	110.13	101.71
1963 . . .	100.80	100.70	103.16	101.30	103.75	102.14	141.86	109.11	101.56
1964 . . .	100.72	100.66	103.01	101.12	103.84	101.97	138.64	108.43	101.48
1965 . . .	100.64	100.55	102.86	100.94	103.85	101.82	135.52	108.66	101.38
1966 . . .	100.57	100.49	102.69	100.82	103.78	101.69	132.85	108.14	101.30

(*a*) Part of New South Wales prior to 1911.

The masculinity of the population in the principal countries of the world is shown in the table on pages 208–9.

Age distribution

Proportional distribution, censuses, 1871 *to* 1961. The next table shows the changes which have taken place in the age distribution of the population of Australia since 1871.

POPULATION: PROPORTIONAL AGE DISTRIBUTION, BY SEX, AUSTRALIA 1871 TO 1961

(Per cent)

Census	Males				Females				Persons			
	Under 15 years	15 years and under 65	65 years and over	Total	Under 15 years	15 years and under 65	65 years and over	Total	Under 15 years	15 years and under 65	65 years and over	Total
1871 .	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881 .	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891 .	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901 .	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911 .	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921 .	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933 .	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947 .	25.49	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.89	8.05	100
1954 .	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.18	8.30	100
1961 .	30.61	62.16	7.23	100	29.85	60.33	9.82	100	30.23	61.26	8.51	100

Estimated age distribution, 30 *June* 1964 *and* 1965. Estimates, based on the census distribution of ages and records of births. ages at death, and ages of migrants, are made for intercensal years.

POPULATION: ESTIMATED AGE DISTRIBUTION(*a*), BY SEX, AUSTRALIA 30 JUNE 1964 AND 1965

Age last birthday (years)	30 June 1964			30 June 1965		
	Males	Females	Persons	Males	Females	Persons
0– 4 . . .	596,600	567,100	1,163,700	596,900	567,300	1,164,200
5– 9 . . .	565,000	538,500	1,103,500	580,000	551,500	1,131,500
10–14 . . .	535,800	513,100	1,048,900	543,300	520,700	1,064,000
15–19 . . .	499,600	474,400	974,000	520,500	493,600	1,014,100
20–24 . . .	397,100	376,000	773,100	419,900	397,600	817,500
25–29 . . .	358,900	339,500	698,400	370,300	349,300	719,600
30–34 . . .	362,000	333,800	695,800	356,900	331,800	688,700
35–39 . . .	397,900	369,300	767,200	397,500	366,900	764,400
40–44 . . .	384,000	368,600	752,600	393,000	377,200	770,200
45–49 . . .	326,400	322,700	649,100	329,100	324,000	653,100
50–54 . . .	315,500	302,700	618,200	321,800	313,600	635,400
55–59 . . .	260,800	249,200	510,000	268,000	256,900	524,900
60–64 . . .	202,900	212,900	415,800	208,200	215,200	423,400
65–69 . . .	153,000	188,600	341,600	157,100	191,500	348,600
70–74 . . .	117,400	158,500	275,900	115,700	160,500	276,200
75–79 . . .	76,200	109,400	185,600	77,900	112,600	190,500
80–84 . . .	36,100	58,600	94,700	37,000	60,800	97,800
85 and over . .	16,300	31,300	47,600	16,500	32,600	49,100
Total . .	**5,601,500**	**5,514,200**	**11,115,700**	**5,709,600**	**5,623,600**	**11,333,200**

(*a*) Interim revised age distribution based on the age distribution at the 1961 census adjusted for misstatement of age, and on subsequent births, recorded ages at death, and recorded ages of migrants. The estimates have been revised in accordance with the preliminary (field count) 1966 population census results.

Marital status; country of birth; period of residence in Australia; nationality; race; religion

The following tables show the population of Australia at the censuses of 30 June 1954 and 1961, classified according to marital status, country of birth, period of residence in Australia, nationality, race, and religion.

POPULATION: MARITAL STATUS, BY SEX, AUSTRALIA CENSUSES, 30 JUNE 1954 AND 1961

Marital status	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954–61
	Males	Females	Persons	Males	Females	Persons	
Never married—							
Under 15 years of age	1,309,660	1,253.674	2,563 334	1,626.195	1,550.803	3,176.998	613.664
15 years of age and over	962,491	684,154	1,646.645	1,098.450	770.048	1,868.498	221.853
Total never married	*2,272,151*	*1,937,828*	*4,209,979*	*2,724,645*	*2,320,851*	*5,045,496*	*835,517*
Married . . .	2,062.122	2,043,651	4,105,773	2,364,710	2,344,754	4,709,464	603,691
Married but permanently separated . . .	57,371	66.228	123,599	68.172	78.367	146,539	22,940
Widowed . . .	113.064	351.102	464.166	116,085	408.623	524,708	60,542
Divorced . . .	32.389	36,650	69,039	38,640	43,339	81,979	12,940
Not stated . . .	9,021	4,953	13,974	(*a*)	(*a*)	(*a*)	−13,974
Grand total . .	4,546,118	4,440,412	8,986,530	5,312.252	5,195,934	10,508,186	1,521,656

(*a*) In processing the 1961 census data a marital status was allocated prior to tabulation in all instances where this information was not stated.

Minus sign (−) denotes decrease.

POPULATION: COUNTRY OF BIRTH, BY SEX, AUSTRALIA CENSUSES, 30 JUNE 1954 AND 1961

Country of birth	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954–61
	Males	Females	Persons	Males	Females	Persons	
Australia	*3,812.435*	*3,887,629*	*7,700,064*	*4,325,005*	*4,404,401*	*8,729,406*	*1,029,342*
New Zealand	21,723	21,627	43,350	23,377	23,634	47,011	3,661
Europe—							
United Kingdom and Republic of Ireland	359,010	305,195	664,205	400,491	354,911	755,402	91,197
Germany	33.663	31,759	65,422	57,579	51.736	109,315	43,893
Greece	16,794	9,068	25,862	43,593	33,740	77,333	51,471
Italy	80,279	39,618	119,897	134,624	93,672	228,296	108,399
Malta	12 411	7,577	19,988	22,628	16,709	39,337	19,349
Netherlands	30,046	21,989	52,035	56,811	45,272	102,083	50,048
Poland	35,652	20,942	56,594	36.395	23,654	60,049	3,455
Other	91,848	59,213	151,061	134.185	90,212	224,397	73,336
Total, Europe	659,703	495,361	1,155,064	886,306	709,906	1,596,212	441,148
Other countries	52,257	35,795	88,052	77.564	57 993	135,557	47,505
Total born outside Australia	*733,683*	*552,783*	*1,286.466*	*987,247*	*791,533*	*1,778,780*	*492,314*
Grand total	**4,546,118**	**4,440,412**	**8.986,530**	**5,312,252**	**5,195,934**	**10,508,186**	**1.521,656**

PERSONS BORN OUTSIDE AUSTRALIA, BY PERIOD OF RESIDENCE IN AUSTRALIA AND SEX, CENSUSES, 30 JUNE 1954 AND 1961

Period of residence (years)	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954–61
	Males	Females	Persons	Males	Females	Persons	
Under 1	47,430	34,841	82,271	72,162	51,169	123.331	41,060
1 and under 2	32,228	27,096	59,324	48,600	38,366	86,966	27,642
2 ,, ,, 3	65,374	39,354	104,728	47,126	42,901	90,027	−14,701
3 ,, ,, 4	71,183	50,367	121,550	37,736	41,254	78,990	−42,560
4 ,, ,, 5	87,636	62,200	149,836	42,600	41,284	83,884	−65,952
5 ,, ,, 6	64,618	45,416	110,034	54,091	42,064	96,155	−13,879
6 ,, ,, 7	21,522	15,424	36,946	51,816	40,202	92,018	55,072
7 ,, ,, 14	331,417	268,228	599,645	345,666	254,983	600,649	490,716
14 ,, ,, 21				22,386	17,795	40.181	
21 and over				244,002	205,529	449,531	
Not stated	12,275	9,857	22,132	21,062	15,986	37,048	14,916
Total	**733,683**	**552,783**	**1,286,466**	**987,247**	**791,533**	**1,778.780**	**492,314**

Minus sign (−) denotes decrease.

POPULATION: NATIONALITY (i.e. ALLEGIANCE), BY SEX, AUSTRALIA CENSUSES, 30 JUNE 1954 AND 1961

Nationality	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954–61
	Males	Females	Persons	Males	Females	Persons	
British(a)—							
Born in Australia	3,812,435	3,887,629	7,700,064	4,325,005	4,404,401	8,729,406	1,029,342
Born outside Australia	485,601	397,473	883,074	686,611	568,692	1 255,303	372,229
Total, British	*4,298,036*	*4,285,102*	*8,583,138*	*5,011,616*	*4,973 093*	*9,984,709*	*1,401,571*
Foreign—							
Dutch	30,518	22,940	53,458	41,216	34,601	75,817	22,359
German	17,262	14,186	31,448	34,317	26,172	60,489	29,041
Greek	11,415	6,428	17,843	32.763	28,238	61,001	43,158
Hungarian	5,910	3,746	9,656	8,210	5,816	14,026	4,370
Italian	61,673	28,345	90,018	86,941	67,068	154,009	63,991
Latvian, Lithuanian and Estonian	16.735	13,893	30,628	4,176	2,936	7,112	−23.516
Polish	29.524	20,222	49,746	12,939	9,474	22,413	−27.333
Ukrainian	9,871	7,368	17,239	2.926	2,109	5,035	−12,204
Yugoslavian	11,633	6,491	18,124	17,745	9,637	27,382	9,258
Other (incl. Stateless)	53.541	31,691	85,232	59,403	36,790	96,193	10,961
Total, foreign	*248,082*	*155,310*	*403,392*	*300,636*	*222,841*	*523,477*	*120,085*
Grand total	**4,546,118**	**4,440,412**	**8,986.530**	**5.312.252**	**5,195,934**	**10.508,186**	**1,521,656**

(a) All persons of individual citizenship status who, by virtue of the *Nationality and Citizenship Act* 1948–1960. are deemed to be British subjects. Includes naturalised British. For purposes of this table Irish nationality is included with British.

Minus sign (−) denotes decrease.

POPULATION: RACE, BY SEX, AUSTRALIA, CENSUSES, 30 JUNE 1954 AND 1961

Race	Census, 30 June 1954			Census, 30 June 1961		
	Males	Females	Persons	Males	Females	Persons
European	*4,508,795*	*4,412,896*	*8,921,691*	*5,260,853*	*5,157,908*	*10,418,761*
Non-European—						
Afghan	73	25	98	63	36	99
African, n.e.i.	52	5	57	65	19	84
Arab, Persian	201	70	271	333	222	555
Asian Jew	42	27	69	53	48	101
Asian, n.e.i.	733	169	902	793	325	1,118
Chinese	9,150	3,728	12,878	14,237	6,145	20,382
Cingalese, Burgher, Tamil	196	72	268	384	279	663
Egyptian	30	31	61	42	34	76
Fijian	51	13	64	100	38	138
Filipino	127	100	227	169	128	297
Indian, Pakistani	1,892	317	2,209	2,937	595	3,532
Indonesian, Javanese, Timorese, etc.	312	36	348	449	90	539
Japanese	247	292	539	949	769	1,718
Malay	534	251	785	717	346	1,063
Maori	57	29	86	102	92	194
Negro	56	13	69	106	26	132
Pacific Islander, n.e.i.(*a*)	934	764	1,698	1,158	1,028	2,186
Papuan, New Guinean	28	8	36	72	58	130
Siamese, Thailander	163	60	223	180	60	240
Syrian, Lebanese	1,374	916	2,290	1,834	1,407	3,241
Torres Strait Islander	2,043	2,210	4,253	2,446	2,526	4,972
Other and indefinite	37	18	55	77	43	120
Total, non-European	18,332	9,154	27,486	27,266	14,314	41,580
European and(*b*)—						
Afghan	69	47	116	56	62	118
African, n.e.i.	11	4	15	8	13	21
Arab, Persian	18	12	30	23	18	41
Asian Jew	11	3	14	4	9	13
Asian, n.e.i.	60	52	112	111	117	228
Australian Aboriginal	15,849	15,510	31,359	19,713	19,459	39,172
Chinese	1,404	1,276	2,680	1,648	1,538	3,186
Cingalese, Burgher, Tamil	58	65	123	124	104	228
Egyptian	4	7	11	11	16	27
Fijian	15	20	35	21	22	43
Filipino	101	100	201	176	220	396
Indian, Pakistani	259	179	438	293	240	533
Indonesian, Javanese, Timorese, etc.	12	21	33	71	68	139
Japanese	114	132	246	497	456	953
Malay	214	235	449	313	329	642
Maori	89	82	171	126	129	255
Negro	77	58	135	60	59	119
Pacific Islander, n.e.i.(*a*)	257	257	514	367	362	729
Papuan, New Guinean	10	7	17	33	43	76
Siamese, Thailander	25	18	43	17	19	36
Syrian, Lebanese	103	96	199	108	108	216
Torres Strait Islander	60	49	109	134	111	245
Other and indefinite	171	132	303	219	210	429
Total, European/other races(*b*)	18,991	18,362	37,353	24,133	23,712	47,845
Total, non-European and European/other races	*37,323*	*27,516*	*64,839*	*51,399*	*38,026*	*89,425*
Grand total	**4,546,118**	**4,440,412**	**8,986,530**	**5,312,252**	**5,195,934**	**10,508,186**

(*a*) Includes Pacific Islander, Polynesian and South Sea Islander, so described. (*b*) This category covers persons with European blood to the extent of one-half and blood of a non-European race to the extent of one-half.

The characteristic 'race' refers broadly to the ethnic origin of the person irrespective of where born or of what nationality. For this characteristic the basic data do not permit of scientific classification of ethnic origin, and the races are named with a geographical rather than a truly ethnological description.

POPULATION: RELIGION, BY SEX, AUSTRALIA, CENSUSES, 30 JUNE 1954 AND 1961

Religion	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954–61
	Males	Females	Persons	Males	Females	Persons	
Christian—							
Baptist	60,048	67,396	127,444	70,990	78,638	149,628	22,184
Brethren	7,511	8,893	16,404	7,265	8,228	15,493	−911
Catholic, Roman(*a*)	413,719	347,383	761,102	602,763	536,886	1,139,649	378,547
Catholic(*a*)	635,398	664,486	1,299,884	730,093	750,242	1,480,335	180,451
Churches of Christ	37,880	42,484	80,364	45,115	50,518	95,633	15,269
Church of England	1,709,197	1,699,653	3,408,850	1,834,732	1,834,208	3,668,940	260,090
Congregational	32,508	36,944	69,452	34,679	38,847	73,526	4,074
Greek Orthodox	44,382	30,363	74,745	84,965	69,959	154,924	80,179
Lutheran	60,306	55,872	116,178	82,453	77,729	160 182	44,004
Methodist	478,605	499,328	977,933	528,003	548,392	1,076,395	98,462
Presbyterian	430,798	439,444	870,242	482,503	494,218	976,721	106 479
Protestant (undefined)	48,539	46,877	95,416	50,515	48,048	98,563	3,147
Salvation Army	20,304	22,534	42,838	24,379	26,735	51,114	8,276
Seventh-day Adventist	11,166	14,163	25,329	14,313	17,320	31,633	6,304
Other (including Christian undefined)	31,957	35,616	67,573	48,626	52,779	101,405	33,832
Total, Christian	*4,022,318*	*4,011,436*	*8,033,754*	*4,641,394*	*4,632,747*	*9,274,141*	*1,240,387*
Non-Christian—							
Hebrew	24,548	23,888	48,436	29,571	29,758	59,329	10,893
Other	4,910	1,471	6,381	6,547	2,928	9,475	3,094
Total, non-Christian	*29,458*	*25,359*	*54,817*	*36,118*	*32,686*	*68,804*	*13,987*
Indefinite	10,038	8,418	18,456	13,495	11,267	24,762	6,306
No religion	16,652	7,032	23,684	25,206	12,344	37 550	13,866
No reply	467,652	388,167	855,819	596,039	506,890	1,102,929	247,110
Grand total	**4,546,118**	**4,440,412**	**8,986,530**	**5,312,252**	**5,195,934**	**10,508,186**	**1,521,656**

(*a*) So described in individual census schedules.
Minus sign (−) denotes decrease.

Overseas arrivals and departures

More detailed statistics of overseas arrivals and departures, covering country of residence, country of embarkation/intended disembarkation, mode of travel, month of arrival or departure, etc., are shown in the tables of Section II., Overseas Arrivals and Departures, of the annual bulletin *Demography*. Monthly and quarterly mimeographed bulletins, containing the latest available statistics of overseas arrivals and departures, are also issued.

In this chapter summary figures are given of the total movement of overseas passengers and details in respect of permanent arrivals and departures. For further information on passengers classified to short-term movement, *see* Chapter 13, Transport, Communication and Travel.

Overseas arrivals and departures since 1936

Earlier issues of the Year Book contain, in summary form, tables showing the increase of population by net migration from 1861 to the latest date, while information for individual years from 1881 is published in the annual bulletin *Demography*. The following table shows, for Australia, arrivals and departures since 1936, and refers to total movement irrespective of length of stay. Air crews and ships' crews, persons passing through Australia on board the same ship or flight, and also persons on a short pleasure cruise in the south-west Pacific commencing and finishing in Australia on a ship not engaged in a regular voyage, are excluded from Australian statistics of overseas arrivals and departures. A graph showing arrivals and departures from 1925 to 1966 appears on plate 17 opposite.

OVERSEAS ARRIVALS AND DEPARTURES

AUSTRALIA, 1926 TO 1966

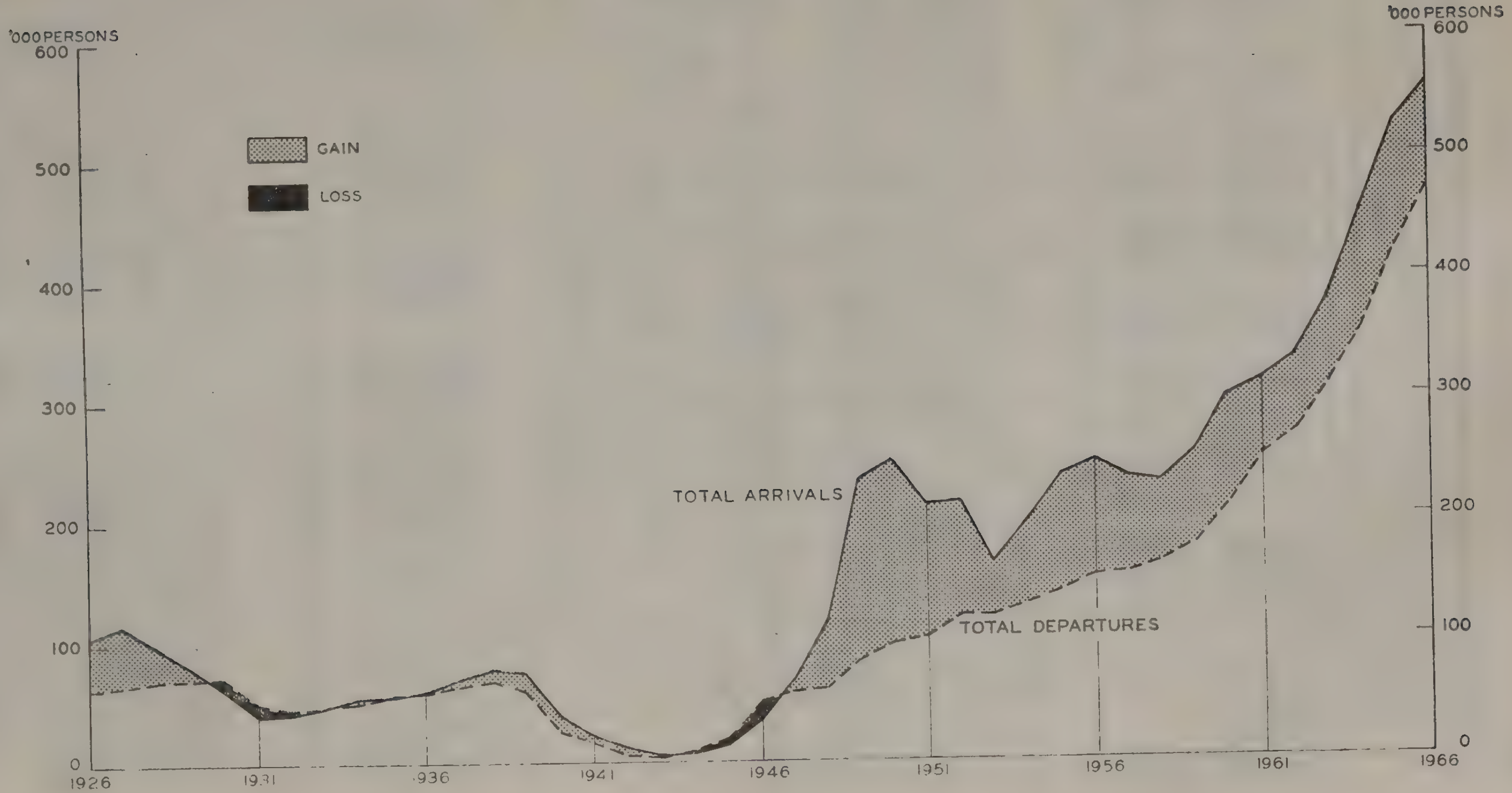


PLATE 17

OVERSEAS ARRIVALS AND DEPARTURES, BY SEX: AUSTRALIA, 1936 TO 1966

Period	Total arrivals			Total departures			Excess of arrivals over departures		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1936–40(*a*)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941–45(*a*)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946–50(*a*)	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951–55	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1956–60	695,445	568,652	1,264,097	481,235	377,840	859,075	214,210	190,812	405,022
1961–65	1,107,419	896,215	2,003,634	906,956	696,790	1,603,746	200,463	199,425	399,888
1962	180,732	151,592	332,324	152,112	117,690	269,802	28,620	33,902	62,522
1963	211,430	169,297	380,727	175,211	133,871	309,082	36,219	35,426	71,645
1964	252,669	199,688	452,357	200,611	152,404	353,015	52,058	47,284	99,342
1965	292,184	232,952	525,136	237,673	182,607	420,280	54,511	50,345	104,856
1966	313,219	244,372	557,591	268,313	202,352	470,665	44,906	42,020	86,926

(*a*) Excludes movements of defence personnel from September 1939 to June 1947.

Excess of arrivals over departures

The excess of total overseas arrivals over departures is one of the elements of population increase taken into account in preparing the estimated population for other than census dates (*see* page 161 of this chapter). It is necessary to use statistics of total overseas arrivals and departures for this purpose, because Australian population statistics relate to the total population present in Australia at the date of the census or estimate, and not the population normally resident in Australia (which would include those temporarily overseas and exclude those temporarily visiting Australia). In the two following tables are set out particulars of the net gain or loss of population due to overseas migration, according to age and marital status and according to country of birth.

EXCESS OF ARRIVALS OVER DEPARTURES, BY SEX: AGE DISTRIBUTION AND MARITAL STATUS, AUSTRALIA, 1964 AND 1965

	1964			1965		
	Males	Females	Persons	Males	Females	Persons
AGE DISTRIBUTION						
Age last birthday on arrival or departure—						
0– 4	5,761	5,288	11,049	6,689	6,617	13,306
5–14	10,574	9,465	20,039	11,354	10,716	22,070
15–24	14,713	11,293	26,006	13,013	10,369	23,382
25–44	16,893	15,878	32,771	18,384	16,512	34,896
45–64	3,169	3,932	7,101	3,972	4,935	8,907
65 and over	948	1,428	2,376	1,099	1,196	2,295
Total	**52,058**	**47,284**	**99,342**	**54,511**	**50,345**	**104,856**
MARITAL STATUS						
Never married—						
Under 15 years of age	16,335	14,753	31,088	18,043	17,333	35,376
15 years of age and over	16,565	10,087	26,652	14,333	8,022	22,355
Married	18,724	21,393	40,117	21,442	22,772	44,214
Widowed	218	939	1,157	383	1,761	2,144
Divorced	216	112	328	310	457	767
Total	**52,058**	**47,284**	**99,342**	**54,511**	**50,345**	**104,856**

EXCESS OF ARRIVALS OVER DEPARTURES, BY SEX: COUNTRY OF BIRTH AUSTRALIA, 1964 TO 1966 (9 MONTHS)

Country of birth	1964			1965			9 months ended Sept. 1966		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Africa—									
Commonwealth countries	501	478	979	471	443	914	577	433	1,010
South Africa	256	301	557	142	182	324	46	56	102
Other	1,010	867	1,877	645	629	1,274	609	398	1,007
America—									
Canada	402	287	689	394	358	752	−4	114	110
Other Commonwealth countries	48	43	91	72	55	127	83	58	141
United States of America	832	701	1,533	1,009	760	1,769	609	329	938
Other	146	129	275	179	137	316	121	131	252
Asia—									
Ceylon, India, Pakistan	578	598	1,176	647	598	1,245	709	649	1,358
Malaysia and Singapore	392	354	746	140	213	353	1,261	659	1,920
Other Commonwealth countries	376	368	744	164	272	436	414	400	814
China	250	148	398	17	255	272	113	146	259
Other	1,038	955	1,993	1,389	958	2,347	1,657	1,031	2,688
Europe—									
Malta	3,218	2,164	5,382	2,527	2,241	4,768	361	683	1,044
United Kingdom and Ireland	29,313	26,213	55,526	34,134	31,671	65,805	22,012	19,478	41,490
Other Commonwealth countries	65	56	121	130	112	242	100	91	191
Austria	228	131	359	322	237	559	171	69	240
Germany	824	613	1,437	441	640	1,081	454	175	629
Greece	8,897	8,238	17,135	7,867	7,612	15,479	3,509	3,359	6,868
Italy	2,311	4,579	6,890	3,784	3,965	7,749	2,448	2,193	4,641
Netherlands	183	116	299	295	268	563	−24	−132	−156
Poland	352	399	751	503	612	1,115	247	284	531
Spain	82	120	202	277	212	489	197	185	382
Yugoslavia	3,009	1,959	4,968	3,604	2,170	5,774	2,968	2,008	4,976
Other	636	998	1,634	971	738	1,709	719	557	1,276
Oceania—									
Australia	−6,018	−5,907	−11,925	−7,881	−7,217	−15,098	−11,639	−10,381	−22,020
New Zealand	2,033	1,529	3,562	1,461	1,432	2,893	1,033	588	1,621
Papua and New Guinea	472	300	772	377	301	678	660	236	896
Other Commonwealth countries	151	139	290	−52	79	27	185	163	348
Other	−6	−15	−21	4	44	48	−12	−42	−54
At sea, and not stated	479	423	902	478	368	846	174	135	309
Grand total	52,058	47.284	99,342	54,511	50,345	104,856	29,758	24,053	53,811

Minus sign (−) indicates excess of departures over arrivals.

Classification of travellers

Since 1 July 1924 overseas travellers have been classified according to declared intention in regard to residence into two principal categories, distinguishing movements for short terms from movements for longer periods (including permanently). Prior to 1957 these categories were *temporary* and *permanent*. Thereafter the categories were entitled *short-term* and *permanent and long-term*, but the basis of classification was not changed and the figures are directly comparable for the whole period. For short-term movements overseas visitors and Australian residents were identified separately.

Revised questions for travellers were introduced in mid-1958, and these enabled the separation, from 1 January 1959, of permanent from other long-term movements and also the identification among the permanent departures of former settlers departing.

The principal categories of travellers are as follows.

Permanent movement—consists of persons arriving with stated intention of settling permanently in Australia (settlers), and Australian residents departing with stated intention of residing permanently abroad; the latter include *former settlers*, i.e. persons who, on departure from Australia, stated that they had come to Australia to settle, had stayed for a period of twelve months or more and were now departing permanently.

Long-term movement—consists of the arrival of visitors and the departure of residents with stated intention of staying (in Australia or in a country abroad respectively) for twelve months or more; and the departure of visitors and the return of residents who have stayed (in Australia or in a country abroad respectively) for twelve months or more.

Short-term movement—consists of all other movements, including the movement of Australian troops irrespective of period of stay.

This classification is based on statements made by the traveller on arrival in, or departure from, Australia. They represent the traveller's intention at that time. Many travellers subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

The numbers so classified since 1 January 1941, on the basis of declared intention as to residence, and since 1 January 1961, on this basis supplemented by additional particulars as to stated purpose of travel, are as follows.

OVERSEAS ARRIVALS AND DEPARTURES: CLASSIFICATION OF TRAVELLERS AUSTRALIA, 1941 TO 1966

ARRIVALS

Period	Permanent and long-term movement				Short-term movement				Total arrivals
	Permanent	Long-term		Total permanent and long-term arrivals	Residents returning	Overseas visitors arriving			
	Settlers arriving	Residents returning	Overseas visitors arriving			In transit	Other	Total	
1941–45 .	n.a.	n.a.	n.a.	32,624	11,150	n.a.	n.a.	20,151	63,925
1946–50 .	n.a.	n.a.	n.a.	457,988	108,736	n.a.	n.a.	135,196	701,920
1951–55 .	n.a.	n.a.	n.a.	570,090	216,949	77,825	163,002	240,827	1,027,866
1956–60 .	n.a.	n.a.	n.a.	615,767	309,611	84,206	254,513	338,719	1,264,097
1961–65 .	575,992	111,288	73,848	761,128	585,203	143,424	513,879	657,303	2,003,634
1962 .	90,464	20,580	13,941	124,985	95,915	25,477	85,947	111,424	332,324
1963 .	108,150	22,205	13,813	144,168	111,182	27,348	98,029	125,377	380,727
1964 .	134,464	23,641	15,020	173,125	131,354	31,583	116,295	147,878	452,357
1965 .	147,507	26,260	17,497	191,264	160,544	34,071	139,257	173,328	525,136
1966 .	141,033	28,292	19,234	188,559	181,770	32,593	154,669	187,262	557,591

DEPARTURES

Period	Permanent and long-term movement						Short-term movement		Total departures
	Permanent			Long-term		Total permanent and long-term departures	Residents departing	Overseas visitors departing	
	Former settlers departing	Other residents departing	Total permanent departures	Residents departing	Overseas visitors departing				
1941–45 .	n.a.	n.a.	n.a.	n.a.	n.a.	22,399	9,163	24,554	56,116
1946–50 .	n.a.	n.a.	n.a.	n.a.	n.a.	105,968	101,787	141,081	348,836
1951–55 .	n.a.	n.a.	n.a.	n.a.	n.a.	155,509	212,978	245,555	614,042
1956–60 .	n.a.	n.a.	n.a.	n.a.	n.a.	210,807	306,118	342,150	859,075
1961–65 .	48,491	33,989	82,480	189,526	63,593	335,599	593,119	675,028	1,603,746
1962 .	8,518	6,911	15,429	31,781	13,137	60,347	95,872	113,583	269,802
1963 .	9,102	7,176	16,278	38,317	12,729	67,324	112,427	129,331	309,082
1964 .	7,828	7,255	15,083	40,958	13,085	69,126	133,248	150,641	353,015
1965 .	14,803	6,110	20,913	46,313	12,429	79,655	161,692	178,933	420,280
1966 .	18,343	7,965	26,308	54,321	11,999	92,628	183,161	194,876	470,665

Permanent movement

In the following paragraphs particulars are given of the *persons who on arrival in Australia stated that they came intending to settle*, and of *Australian residents who on departure from Australia stated their intention of residing permanently abroad.*

Country of birth. The principal countries of birth of permanent arrivals (assisted arrivals and others) and departures during the year 1965 and the nine months ended September 1966 were as follows.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT COUNTRY OF BIRTH, AUSTRALIA, 1965 AND 1966 (9 MONTHS)

Country of birth	1965				9 months ended Sept. 1966			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Others	Total		Assisted (a)	Others	Total	
Africa—								
Commonwealth countries	456	632	1,088	104	240	723	963	81
South Africa	250	279	529	141	139	163	302	144
Other	170	1,241	1,411	65	160	1,029	1,189	49
America—								
Commonwealth countries	222	824	1,046	195	186	514	700	196
United States of America	1,055	1,105	2,160	514	886	,70	1,656	526
Other	102	244	346	33	115	177	292	22
Asia—								
Ceylon, India, Pakistan	379	988	1,367	123	273	1,086	1,359	88
Other Commonwealth countries	229	939	1,168	218	218	819	1,037	165
Other	262	2,598	2,860	315	113	2,333	2,446	261
Europe—								
Malta	3,232	2,138	5,370	99	1,041	703	1,744	134
United Kingdom and Ireland	72,883	6,594	79,477	9,215	50,950	4,763	55,713	7,636
Other Commonwealth countries	262	32	294	30	198	25	223	13
Austria	859	135	994	156	571	92	663	133
Belgium	157	33	190	57	221	24	245	26
Germany	2,761	680	3,441	809	2,289	412	2.701	608
Greece	3,020	14,155	17.175	182	2,111	7,407	9,518	177
Italy	439	10,107	10,546	313	628	8,134	8,762	308
Netherlands	1,794	513	2,307	724	1,073	400	1.473	493
Poland	156	1,069	1.225	138	144	679	823	146
Spain	476	650	1,126	55	438	499	937	92
Yugoslavia	1,828	4.629	6,457	256	1,785	4,056	5,841	206
Other	1,751	1,256	3,007	644	1,732	882	2,614	597
Oceania—								
Australia	653	314	967	5,629	259	235	494	5,078
New Zealand	28	2,025	2,053	793	27	1,754	1,781	607
Other Commonwealth countries	46	180	226	64	5	157	162	65
Other	2	29	31	11	..	16	16	3
At sea, and not stated	181	465	646	30	69	168	237	17
Total	93,653	53,854	147,507	20,913	65,871	38,020	103,891	17,871

(a) For details of assisted passage schemes *see* pages 194–8.

Nationality. The principal nationalities of permanent arrivals (assisted arrivals and others) and departures during the years 1965 and the 9 months ended September 1966 were as follows.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT: NATIONALITY, AUSTRALIA, 1965 AND 1966 (9 MONTHS)

Nationality	1965				9 months ended Sept. 1966			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Others	Total		Assisted (a)	Others	Total	
British—								
Country of citizenship—								
Australia	523	1,012	1,535	5,173	165	628	793	4,979
Canada	75	851	926	224	43	520	563	223
Ceylon, India and Pakistan	4	660	664	55	3	804	807	37
Ireland(b)	1,191	161	1,352	183	775	119	894	137
Malta	2,624	1,779	4,403	90	961	667	1.628	126
New Zealand	19	2.046	2,065	694	5	1,836	1,841	554
South Africa(b)	131	201	332	98	72	94	166	106
United Kingdom and colonies	71,205	8,519	79.724	8.172	49,557	5,611	55 168	6,753
Other countries	70	676	746	197	41	613	654	167
Citizenship not stated	6,283	1,356	7,639	2,067	2,525	480	3,005	1,432
Total, British	*79,501*	*15,482*	*94,983*	*16,863*	*54,147*	*11,372*	*65,519*	*14,514*

For footnotes *see* next page.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT NATIONALITY, AUSTRALIA, 1965 AND 1966 (9 MONTHS)—*continued*

Nationality	1965				9 months ended Sept. 1966			
	Arrivals			Departures	Arrivals			Departures
	Assisted (*a*)	Other	Total		Assisted (*a*)	Other	Total	
American(U.S.)	1,103	1,177	2,280	675	917	816	1,733	651
Austrian	861	133	994	155	564	81	645	123
Belgian	157	28	185	54	223	22	245	23
Dutch	1,861	609	2,470	795	1,109	460	1,569	517
German	2,650	517	3,167	817	2,123	366	2,489	554
Greek	3,022	14,519	17,541	181	2,110	7 589	9,699	170
Italian	418	10,358	10,776	268	621	8,311	8,932	277
Lebanese	1	1,289	1,290	9	1	1,249	1,250	9
Polish(*c*)	24	1,006	1,030	85	39	648	687	79
Russian(*d*)	2	209	211	30	..	89	89	11
Spanish	459	675	1,134	53	445	488	933	96
Yugoslav	1,494	4,674	6,168	183	1,545	3,983	5,528	138
Stateless(*e*)	428	639	1,067	35	312	255	567	17
Other	1,672	2,539	4,211	710	1,715	2,291	4,006	692
Grand total	**93,653**	**53,854**	**147,507**	**20,913**	**65,871**	**38,020**	**103,891**	**17,871**

(*a*) For details of assisted passage schemes *see* pages 194–8. (*b*) Included with 'British' nationality for the purpose of this table. (*c*) Includes 'Stateless' who were formerly Polish. (*d*) Includes 'Stateless' who were formerly Russian. (*e*) Stateless, former nationality not stated, or other than Polish or Russian.

Occupation. The main occupation groupings of permanent arrivals and departures during the year 1965 and the nine months ended September 1966 were as follows.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT OCCUPATION AND SEX, AUSTRALIA, 1965 AND 1966 (9 MONTHS)

Occupation group(*a*)	1965				9 months ended Sept. 1966			
	Arrivals		Departures		Arrivals		Departures	
	Males	Females	Males	Females	Males	Females	Males	Females
Professional, technical and related workers	4,354	2,342	1,229	794	3,056	1,731	1,078	661
Administrative, executive and managerial workers	2,225	281	522	50	1,618	204	444	39
Clerical workers	2,323	4,837	449	1,101	1,631	3,378	455	881
Sales workers	1,819	1,098	350	188	1,295	783	290	152
Farmers, fishermen, hunters, timber getters and related workers	3,595	80	221	6	2,106	156	147	2
Miners, quarrymen and related workers	484	..	56	..	392	..	41	..
Workers in transport and communication	3,672	427	346	57	2,505	297	301	51
Craftsmen and production-process workers	18,807	2,956	2,680	347	13,828	1,859	2,496	256
Labourers	8,682	..	628	..	6,466	..	501	..
Service (protective and other), sport and recreation workers	1,818	6,736	267	312	1,439	3,921	251	209
Occupation inadequately described or not stated	4,047	623	169	41	2,591	250	152	22
Persons not in work force—								
Children and students	25,477	23,218	3,416	3,156	18,350	16,499	2,993	2,710
Others	1,030	26,576	288	4,240	736	18,800	234	3,505
Total	**78,333**	**69,174**	**10,621**	**10,292**	**56,013**	**47,878**	**9,383**	**8,488**

(*a*) The classification of occupations used in compiling these figures is that used for the 1961 census and is not directly comparable with that in use prior to 1961.

Age and marital status. The age distribution and marital status of permanent arrivals and departures during the nine months ended September 1966 were as follows.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT, BY SEX, AGE DISTRIBUTION AND MARITAL STATUS, AUSTRALIA
9 MONTHS ENDED SEPT. 1966

Age last birthday at time of arrival or departure	Arrivals				Departures			
	Never married	Married	Widowed or divorced	Total	Never married	Married	Widowed or divorced	Total
				MALES				
0– 4	6,691	..	..	6,691	1,122	..	..	1,122
5–14	10,205	..	..	10,205	1,575	..	..	1,575
15–24	11,219	2,234	22	13,475	1,374	263	4	1,641
25–44	5,750	14,946	258	20,954	1,119	2,527	74	3,720
45–64	242	3,461	190	3,893	143	863	67	1,073
65 and over	33	575	187	795	27	154	71	252
Total	*34,140*	*21,216*	*657*	*56,013*	*5,360*	*3,807*	*216*	*9,383*
				FEMALES				
0– 4	6,362	..	..	6,362	1,099	..	..	1,099
5–14	9,152	..	..	9,152	1,403	..	..	1,403
15–24	6,529	4,837	35	11,401	804	790	4	1,598
25–44	1,972	13,291	308	15,571	514	2,388	89	2,991
45–64	217	2,890	1,044	4,151	72	697	210	979
65 and over	63	400	778	1,241	24	122	272	418
Total	*24,295*	*21,418*	*2,165*	*47,878*	*3,916*	*3,997*	*575*	*8,488*
				PERSONS				
0– 4	13,053	..	..	13,053	2,221	..	..	2,221
5–14	19,357	..	..	19,357	2,978	..	..	2,978
15–24	17,748	7,071	57	24,876	2,178	1,053	8	3,239
25–44	7,722	28,237	566	36,525	1,633	4,915	163	6,711
45–64	459	6,351	1,234	8,044	215	1,560	277	2,052
65 and over	96	975	965	2,036	51	276	343	670
Total	58,435	42,634	2,822	103,891	9,276	7,804	791	17,871

Settlers—State or Territory of intended residence. The following table shows the number of settlers arriving in Australia, according to the State or Territory of intended residence. Persons are asked, on or before arrival, the State or Territory of Australia in which they next intend to stay for twelve months or more. The statements represent the settlers' intentions at the time and may not be realised. The allocation to States and Territories in the table is based on these statements, except that settlers proceeding to the migrant reception centre, Bonegilla, Victoria, are allocated, as far as is practicable, to the State or Territory of their placement from the centre.

OVERSEAS ARRIVALS—SETTLERS ARRIVING: STATE OR TERRITORY OF INTENDED RESIDENCE, 1963 TO 1966

State or Territory of intended residence	1963	1964	1965	1966
New South Wales	34,143	42,853	50,921	45,803
Victoria	33,178	46,023	43,545	39,372
Queensland	6,995	8,837	10,546	8,768
South Australia	13,112	19,985	22,337	21,116
Western Australia	10,383	10,316	11,613	16,694
Tasmania	1,240	1,567	1,787	1,899
Northern Territory	196	327	374	340
Australian Capital Territory	827	1,024	1,145	1,123
Not stated(*a*)	8,076	3,532	5,239	5,918
Total	**108,150**	**134,464**	**147,507**	**141,033**

(*a*) Includes also persons passing through the migrant reception centre who were not placed by the end of the month following the quarter of arrival.

Former settlers and other residents departing permanently—country of intended future residence. The principal countries of intended future residence (i.e. for a period of twelve months or more) of persons departing permanently during the year 1965 and the nine months ended September 1966 are shown in the following table. Separate figures are given for 'former settlers' departing permanently (*see* definition on page 189) and other residents departing permanently.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT DEPARTURES COUNTRY OF INTENDED FUTURE RESIDENCE(*a*), AUSTRALIA, 1965 AND 1966 (9 MONTHS)

Country of intended future residence(*a*)	1965			9 months ended Sept. 1966		
	Former settlers	Other residents	Total	Former settlers	Other residents	Total
United Kingdom and Ireland	7,605	1,221	8,826	6,040	861	6,901
Canada	455	378	833	575	402	977
New Zealand	2,103	1,779	3,882	1,946	1,764	3,710
Papua and New Guinea	146	1,085	1,231	127	1,031	1,158
Other Commonwealth Countries	479	383	862	329	363	692
Total, Commonwealth countries	*10,788*	*4,846*	*15,634*	*9,017*	*4,421*	*13,438*
Germany	576	127	703	454	89	543
Italy	256	62	318	254	70	324
Netherlands	588	143	731	345	103	448
Other European countries	982	194	1,176	847	142	989
United States of America	1,052	528	1,580	825	442	1,267
Other countries	561	210	771	639	223	862
Total, foreign countries	*4,015*	*1,264*	*5,279*	*3,364*	*1,069*	*4,433*
Grand total	**14,803**	**6,110**	**20,913**	**12,381**	**5,490**	**17,871**

(*a*) For a period of twelve months or more.

Assisted migration into Australia

Immigration has always been a major factor in Australia's economic growth. Since the 1939–45 War immigration programmes have been pursued as a central feature of Government policies for national development. Since 1945 successive Australian governments have borne a substantial part of the passage costs of selected migrants from overseas countries. This assistance has in some cases been matched or partly matched by contributions from the government of the emigration country and from international funds. The basis of operation has varied from country to country—bilateral migration agreements have been negotiated with some countries, migration arrangements have been made through the Intergovernmental Committee for European Migration (ICEM) with other countries, and in other instances unilateral assistance has been given by the Australian Government. In the following table particulars are shown of the total numbers of persons who were assisted to come to Australia by the Australian Government under all assisted passage schemes during the period 1946 to 1966.

ASSISTED MIGRATION: AUSTRALIA, 1946 TO 1966

Period	Nominated and selected (assisted) arrivals
1946–50	273,195
1951–55	275,241
1956–60	305,517
1961–65	337,132
1961	55,685
1962	45,276
1963	62,914
1964	79,604
1965	93,653
1966	89,743

Joint Commonwealth and States scheme

Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Year Book (*see* No. 38, page 576). After the outbreak of hostilities in 1939 it was decided to discontinue the grant of assisted passages for the duration of the war.

Migration from Britain

At the conclusion of the 1939–45 War two migration agreements were negotiated between the Australian and British Governments and signed on 5 March 1946. These agreements came into operation on 31 March 1947, and provided respectively for granting free passages to British ex-servicemen and their dependants and assisted passages to other residents of Britain wishing to settle permanently in Australia. The free passage agreement was terminated on 28 February 1955, but the assisted passage agreement has continued in operation by renewal from time to time. The current assisted passage agreement formally expired on 31 March 1967, but action is in course to re-negotiate. In the meantime the provisions of the agreement are being continued by mutual consent of the two Governments.

Assisted passages. Under the present agreement the British Government contributes £Stg150,000 per annum towards the cost of the movement of migrants to Australia. Each migrant 19 years of age or over contributes £Stg10 towards his passage costs. Migrants under 19 years of age make no contribution. The Australian Government meets the balance of the overall transport costs.

Eligibility for consideration for assisted passages is confined generally to citizens of the United Kingdom and colonies, normally resident in Britain. Within those broad conditions of eligibility, there are six categories of applicants who may be granted assisted passages under current arrangements.

Personal nominees—persons sponsored by relatives or friends already established in Australia who provide accommodation for their nominees.

Group nominees—workers and their dependants sponsored or selected to meet labour requirements specifically notified by public and private employers.

Commonwealth nominees—workers and their dependants selected to meet labour requirements within industry generally in Australia.

'Bring out a Briton' nominees—persons sponsored by special voluntary committees formed throughout Australia to stimulate the flow of British migrants through community effort.

Single men and women and married couples without children—persons with a minimum capital of £Stg25 each, selected without specific nomination, who are prepared to make their own accommodation arrangements upon arrival.

'Nest-egg families'—families with a minimum capital of £Stg1,000 and prepared to make their own accommodation arrangements on arrival.

Hostels are operated by the Australian Government and also by the State Governments to provide transit or temporary accommodation for certain groups of newly arrived migrants.

Number of arrivals. The numbers of British migrants who came to Australia under the Free and Assisted Passage Agreement during the period January 1947 to June 1966 are given in the following table according to the State of proposed destination.

UNITED KINGDOM FREE AND ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS(*a*), STATES AND TERRITORIES, JANUARY 1947 TO JUNE 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T. and N.T.	Cwlth nominees(*b*)	Total
Jan. 1947–June 1960	76,366	87.750	40.755	29,445	31,682	11,337	3,676	85,157	366.168
1960–61	6,313	6,186	2.579	3.308	1,613	637	234	13.830	34.700
1961-62	5,804	4,433	2,595	3,317	2,094	509	157	8.161	27,070
1962–63	8.093	6.118	2,980	4.512	5,294	677	271	13.755	41.700
1963–64	12,272	10,791	4,272	10.509	4,894	909	316	10,667	54,630
1964-65	18,353	12,737	4.997	11,155	5.259	1,166	336	16,685	70,688
1965–66	15,256	10,249	4,410	12,205	8,510	1,173	393	18,558	70,754
Total, January 1947 to June 1966	142,457	138,264	62,588	74.451	59,346	16,408	5,383	166.813	665,710

(*a*) Includes child migrants as shown on page 196. (*b*) *See* text above for explanation.

Child migration from Britain

The pre-war arrangements under which child migrants were brought to Australia under the sponsorship of various religious denominations and voluntary organisations were resumed in 1947. Under current arrangements these young migrants receive assisted passages and special maintenance provisions involving the British Government and the Australian and State Governments. From the beginning of 1947 to 30 June 1966 a total of 7,861 British child and youth migrants arrived under sponsorship, 5,449 to New South Wales, 1,374 to Western Australia, 583 to Victoria, and 455 to other States. These arrivals are included in the table on page 195.

Maltese migration

The Australian Government and the Government of Malta entered into an agreement on 28 April 1965, under which financial assistance is granted jointly towards the movement to Australia of approved migrants from Malta. The agreement supersedes earlier ones signed in 1948 and 1956. ICEM (Intergovernmental Committee for European Migration—*see* page 198) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1966 a total of 37,632 Maltese had arrived under the assisted passage scheme.

Netherlands migration

On 1 April 1951 a migration agreement between the Netherlands and Australia came into operation under which selected Dutch workers and their dependants could receive assisted passages to Australia. This superseded an earlier arrangement made in 1946 between the Netherlands Emigration Foundation and Australia (*see* Year Book No. 39, page 56). The 1951 agreement continued in operation under extensions until the signing of the Australia-Netherlands Migration and Settlement Agreement on 1 June 1965. In accordance with Article II of that agreement an 'Australian-Netherlands Assisted Passage Migration Arrangement' was negotiated to come into force concurrently with the agreement. The agreement is for a basic period of five years but will then continue indefinitely subject to termination at one year's notice by either Party. The 'Arrangement' will normally run for the same period as the 'Agreement' but may be terminated at 180 days notice by either Party.

Contributions to passage costs under the arrangement are made by the migrant and the Netherlands and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. ICEM (*see* page 198) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1966, 69,853 Dutch assisted migrants had arrived in Australia.

Italian migration

On 1 August 1951 a migration agreement between Italy and Australia came into operation under which selected Italian workers and their dependants could receive assisted passages to Australia. The agreement was temporarily suspended at the end of 1952 but was resumed at the end of 1954. It continued in operation under extensions until 31 January 1964. Negotiations are in course for a revised agreement and, in the meantime, provision has been made for assisted migration on a limited scale to continue under the previous arrangements. Contributions to passage costs under the agreement are made by the migrant and the Italian and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. ICEM (*see* page 198) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1966, 41,309 Italian assisted migrants had settled in Australia.

German migration

On 29 August 1952 a migration agreement was signed between the Federal Republic of Germany and Australia under which selected German workers and their dependants could receive assisted passages to Australia. The agreement was renewed for five years from 29 August 1957, but assisted migration under the terms of the 1957 agreement continued until a new agreement was signed on 21 June 1965, to run indefinitely subject to one year's notice of termination by either party. Contributions to passage costs under the agreement are made by the migrant and the Governments of the Federal Republic of Germany and Australia. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. ICEM (*see* page 198) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1966, 78,937 German assisted migrants had settled in Australia.

Austrian migration

Late in 1952 arrangements were made between the Austrian Government, the Australian Government and ICEM (*see* page 198) under which selected Austrian workers and their dependants could receive assisted passages to Australia. These arrangements still apply. Contributions to passage costs are made by the migrant and the Australian Government. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1966, 19,309 Austrian assisted migrants had settled in Australia.

Greek migration

Late in 1952 arrangements were made between the Greek Government, the Australian Government and ICEM (*see* page 198) under which selected Greek workers and their dependants could receive assisted passages to Australia. These arrangements still apply. Contributions to passage costs are made by the migrant and the Greek and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1966, 42,421 Greek assisted migrants had settled in Australia.

Spanish migration

In 1958 arrangements were made between the Spanish Government, the Australian Government and ICEM (*see* page 198) under which selected Spanish workers and their dependants could receive assisted passages to Australia. At the request of the Spanish authorities these arrangements, so far as workers are concerned, were temporarily suspended in March 1963. Since then certain female dependants nominated by Spanish assisted migrants already in Australia have continued to arrive in Australia as assisted migrants, and negotiations are in course with a view to restoring the previous assisted passage arrangements for workers and their dependants. Contributions to passage costs are made by the migrant and the Spanish and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1966, 8,077 Spanish assisted migrants had settled in Australia.

Belgian migration

On 1 February 1961 arrangements were made between the Belgian Government, the Australian Government and ICEM (*see* page 198) under which selected Belgian workers and their dependants could receive assisted passages to Australia. These arrangements still apply. Contributions to passage costs are made by the migrant and the Belgian and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1966, 1,826 Belgian assisted migrants had settled in Australia.

Refugee migration

By agreement with the International Refugee Organization, Geneva, on 21 July 1947, Australia undertook to provide resettlement opportunities for Displaced Persons. A total of 170,700 Displaced Persons arrived in Australia under this agreement in the following years. The International Refugee Organization was terminated in 1951 and refugee problems became the responsibility of the United Nations High Commissioner for Refugees, whose office was created by the United Nations specifically for this purpose. At about the same time ICEM was established (*see* page 198) partly to provide arrangements for the actual resettlement overseas of refugees, particularly in regard to transport.

Australia has continued to provide resettlement opportunities for refugees from Europe and elsewhere. In the period from 1945 to 30 June 1966, 301,850 refugees had been resettled in Australia including the 170,700 Displaced Persons mentioned above. Of the total number of refugees received by Australia since the end of World War II up to 30 June 1966, 213,442 have received financial assistance from the Australian Government towards their passage costs.

General Assisted Passage Scheme

This scheme has operated since 10 September 1954, and provides for a contribution by Australia towards passage costs to be granted to selected British and non-British workers and their dependants from a number of countries. Australia provides for the reception of migrants accepted under this scheme and for general assistance towards their settlement in Australia. From 1 July 1966 a new assisted migration programme, the Special Passage Assistance Programme, has operated in Europe. As a result the General Assisted Passage Scheme now applies only to applicants resident outside Europe, e.g. the United States of America, South America and Africa. Up to 30 June 1966, 32,044 assisted migrants had settled in Australia under the General Assisted Passage Scheme.

Special Passage Assistance Programme

This programme has applied since 1 July 1966 to selected applicants residing in Britain, Ireland, continental Europe (excluding Luxembourg and communist countries), and Malta. Persons in those countries who are already eligible under existing assisted passage schemes are not considered for the Special Passage Assistance Programme. Persons nineteen years of age and over are required to contribute $A25 towards their passage costs and may receive assistance up to a maximum of $A335. Persons under 19 years make no contribution and receive assistance up to a maximum of $A360.

Australia provides for the reception of migrants accepted under this programme and for general assistance towards their resettlement.

The Intergovernmental Committee for European Migration (ICEM)

This Committee, like the office of the United Nations High Commissioner for Refugees, was established to perform functions that had formerly been carried out by the International Refugee Organization. In addition to assuming responsibility for the resettlement of refugees, ICEM has been concerned also with the movements of national migrants from Europe. Australia was one of the sixteen foundation members of the Committee; there are now thirty member countries including the British Commonwealth countries of Australia, New Zealand, the United Kingdom and Malta.

The three main functions of ICEM are:

(*a*) the movement of national migrants and the provision of related services;

(*b*) the resettlement of refugees and the provision of related services; and

(*c*) developmental activities and technical co-operation (this includes activities such as language teaching, vocational and orientation training, and in particular measures to facilitate the acceptance of European migrants by Latin American countries).

Each member government is required to contribute an agreed percentage of the Committee's administrative expenditure. Contributions to its operational expenditure are voluntary and governments may stipulate the terms and conditions under which they are to be used.

Up to 30 June 1966 ICEM had moved 1,445,000 persons, of whom 453,000, 328,000 nationals and 125,000 refugees, had departed for Australia.

Summary of arrivals of assisted migrants

The following table shows the number of assisted migrants who arrived in Australia in each of the last five financial years and since January 1947.

ARRIVALS UNDER ASSISTED MIGRATION SCHEMES: AUSTRALIA, JANUARY 1947 TO JUNE 1966

Assisted migration scheme	January 1947 to June 1961	1961–62	1962–63	1963–64	1964–65	1965–66	January 1947 to June 1966
Austrian . . .	16,523	227	372	594	769	824	19,309
Belgian . . .	232	506	414	318	155	201	1,826
General Assisted Passage(*a*) . .	16,080	2,234	1,874	3,327	3,605	4,924	32,044
German . . .	65,613	2,234	1,967	2,987	2,870	3,266	78,937
Greek . . .	28,796	2,761	2,051	2,633	3,507	2,673	42,421
Italian . . .	39,193	1,255	227	195	158	281	41,309
Maltese . . .	26,512	931	1,501	2,665	3,655	2,368	37,632
Netherlands . . .	61,364	2,349	1,352	1,585	1,551	1,652	69,853
Refugee . . .	205,295	946	1,375	2,040	1,609	2,177	213,442
Spanish . . .	2,005	1,549	4,326	78	49	70	8,077
United Kingdom . .	400,868	27,070	41,700	54,630	70,688	70,754	665,710
Other schemes . .	28,682	. .	. .	. .	. .	. .	28,682
Total . . .	**891,163**	**42,062**	**57,159**	**71,052**	**88,616**	**89,190**	**1,239,242**

(*a*) Mostly Scandinavians, U.S. Americans, and British nationals from countries other than the United Kingdom.

NOTE. (i) All arrivals included in this table have obtained some financial assistance from the Australian Government towards payment of their passage money. Transport to Australia for the migrants concerned has been arranged on (*a*) ships under charter to the Department of Immigration, (*b*) ships and aircraft under charter to the Intergovernmental Committee for European Migration, and (*c*) normal commercial shipping and airlines.

(ii) The arrivals under these schemes include a small number of nationals of countries other than those referred to, and stateless persons.

Immigration Advisory Planning and Publicity Councils

Three bodies have been established to advise the Minister for Immigration on the social, economic and publicity aspects of the immigration programme.

The *Immigration Advisory Council*, established in 1947, consists of representatives of major national organisations (e.g. the Australian Council of Trade Unions, the Returned Servicemen's League of Australia, and the National Youth Council) and advises the Minister on the social aspects of immigration. The *Immigration Planning Council*, established in 1949, consists of eminent persons chosen in their own right; it advises the Minister on the economic considerations affecting the immigration programme. The *Immigration Publicity Council*, established in 1962, advises on publicity and publications used in Australia and overseas. Its members represent the press (including the foreign language newspapers), radio and television interests.

Professional Migration

The Department of Immigration, working in close co-operation with the Department of Labour and National Service, provides a special service, including advisory staff in London, to encourage immigration of professionally qualified persons by giving advice and information on prospects in Australia and by placing such applicants in touch with Australian employers.

The number of professional applicants is growing (the majority come from the United Kingdom). Some difficulties being experienced in the recognition of foreign qualifications are yet to be resolved.

The regulation of immigration into Australia

Powers and legislation of the Commonwealth

Under section 51 (xix), (xxvii) and (xxviii) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals. Immigration into Australia is regulated by the *Migration Act* 1958–1966 which came into force on 1 June 1959 and repealed the *Immigration Act* 1901–1949 and the *Aliens Deportation Act* 1948.

Any immigrant entering Australia after the commencement of the Act without having been granted an 'entry permit' or who is not within an exempted class is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries, and seamen who enter on leave while their ships are in Australian ports. For the purposes of the Migration Act an immigrant includes a person entering for temporary stay.

An entry permit is normally granted at the port of entry by means of a stamp in the traveller's passport or equivalent travel document. There is no form of application involved. Temporary permits are granted to persons who have been authorised to enter for a limited period only. Otherwise, permits are issued without limitation as to stay. A person who is refused an entry permit must be kept on board the ship on which he arrives, otherwise the shipping company is liable to a fine of $1,000.

The Act regulates the deportation of persons who enter Australia without an entry permit, who overstay their approved period of residence or who are convicted of crimes. It also contains provisions relating to the emigration of children and Aborigines.

The Act does *not* affect passport or visa requirements for entry to Australia. All persons who, prior to the 1958 Act, had been required before embarkation to obtain visas or other kinds of authority to proceed to Australia, are still required to obtain them. Likewise, persons who have not had to obtain prior authority to proceed to Australia are not now required to obtain such authority solely as a result of the Act. Persons previously allowed to enter without production of passports—notably British people arriving from New Zealand—are still able to do so.

The *Aliens Act* 1947–1966 provides that a register of aliens shall be maintained for every State and mainland Territory of Australia. Unless exempted, aliens 16 years of age and over are required to register with the Department of Immigration and to notify the Department of their address, occupation, or employment during the month of September each year. They are required to notify marriage within thirty days of marriage taking place. The Act provides also that the consent of the Department must be obtained before an alien may change his surname.

The *Immigration (Guardianship of Children) Act* 1946–1966 provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia (except for certain groups exempted) other than in charge of, or for the purpose of living in the care of, a parent or adult relative. It is primarily administered through the Child Welfare authorities in each State and mainland Territory who, as the Minister's delegates under the Act, supervise the welfare of each 'immigrant child'.

Conditions of immigration into Australia

Admission of non-Europeans. Australia's immigration policy is based on the need to maintain a predominantly homogeneous population. It is fundamental to the policy that those people coming to Australia for residence should be capable, both economically and socially, of ready integration into the community.

Australia does not exclude from residence persons of other than European origin. Immigration laws and policy permit the Minister to exercise discretion, taking into account the qualifications of persons wishing to settle here, their ability to integrate readily into the community, and other aspects including considerations of a humanitarian nature and broad national interest.

There are in Australia some 38,200 non-Europeans. Of these, 17,200 are Australian citizens (11,000 by birth and 6,200 by naturalisation or registration), while 3,500 have resident status but have not sought or qualified for citizenship. The remaining 17,500 comprise 4,100 non-Europeans who have been admitted, in some instances with their families, in a variety of categories with temporary residence status, 700 visitors, and an Asian and other non-European student population of 12,700 (including 1,800 government-sponsored students and 10,900 private students).

The present policy provides, *inter alia*, that:

non-Europeans, who are the spouses, unmarried minor children, aged parents or fiancées of Australian citizens, and of other British subjects already having resident status, or eligible to enter with such status, may be admitted for permanent residence. The non-European wife and unmarried minor children of a European alien in similar circumstances may also be admitted for residence;

non-Europeans who have already been admitted under temporary permit but with the expectation of indefinite stay may, after completing five years' residence, qualify to apply for resident status and subsequently for citizenship.

The following are examples of persons who may be considered for entry with a view to settlement, accompanied by their wives and children, on the basis of their general suitability, ability to integrate and qualifications positively useful to Australia. Those admitted are able, after five years' stay on temporary permit, to apply for resident status and citizenship:

persons with specialised technical skills for appointments for which local residents are not available;

persons of high attainment in the arts and sciences, or of prominent achievement in other ways;

persons nominated by responsible authorities or institutions for specific important professional appointments, which otherwise would remain unfilled;

executives, technicians, and other specialists who have spent substantial periods in Australia—for example, with the branches here of large Asian companies—and who have qualifications or experience in positive demand here;

businessmen who in their own countries have been engaged in substantial international trading and would be able to carry on such trade from Australia;

persons who have been of particular and lasting help to Australia's interest abroad in trade, or in other ways;

persons who by former residence in Australia or by association with us have demonstrated an interest in or identification with Australia that should make their future residence here feasible.

In addition to visitors and students, provision exists also for the entry on a limited temporary residence basis of staffs of companies, professional, technical and specialist personnel, and of persons coming for medical treatment, religious training, or as sportsmen and entertainers, and in other miscellaneous categories.

Private students. Young people may enter Australia for the purpose of study, irrespective of their countries of origin. The greater proportion of such private students in Australia are, however, from Asia, the Pacific area and, to a lesser extent, from the continent of Africa (there are at present some 11,000 Asian and other non-European private students in Australia). The objective is to provide the opportunity for young people in these areas to come to Australia for advanced secondary, tertiary and other post-secondary study and training which will result in qualifications in demand and of use in their countries. The student, as well as meeting other requirements of entry, must have the capacity to undertake the course of study proposed, and produce evidence of enrolment and assurances as to maintenance and accommodation. The student is admitted with temporary residence status on the understanding that he will return to his own country when the course of approved study is completed. Extensions of stay are dependent normally upon satisfactory progress being made with his studies.

Persons of European race. Maltese, Cypriots and aliens of European race desiring to settle permanently in Australia are required to obtain authority for admission from the Department of Immigration or an Australian overseas post. Their admission under the present policy is subject to clearance on health, character and security grounds, and to their suitability as settlers generally.

General information. General information about conditions of entry into Australia may be obtained from the following officers:

(*a*) in Australia—the Secretary, Department of Immigration, Canberra, Australian Capital Territory, and Commonwealth Directors of Migration in the capital cities of the various States;

(*b*) in overseas countries—from migration officers or from Australian diplomatic posts (a complete list of these is given in the chapter International Relations).

Passports

Australian passports are issued, under the *Passports Act* 1938–1966 and Passport Regulations, to Australian citizens. Diplomatic passports are issued to persons travelling on official missions of a diplomatic character. Official passports are granted to persons travelling on the official business of the Commonwealth or a State Government. Australian passports are obtainable on application at offices of the Commonwealth Department of Immigration in each State and internal Territory of Australia or from overseas offices of that Department, from any Australian diplomatic or consular mission abroad, or from the office of any Australian Government Trade Commissioner overseas. Applicants for passports must furnish evidence of their identity and nationality and pay a fee of four dollars. Approximately 95,000 Australian passports are issued each year in Australia and abroad.

Citizenship and naturalisation

Commonwealth legislation

The *Nationality and Citizenship Act* 1948 commenced on Australia Day (26 January) 1949, and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of 'Australian Citizen'. In this respect the Act was complementary to citizenship legislation passed or about to be passed by other countries of the British Commonwealth. All Australian citizens, and the citizens of other countries of the British Commonwealth, are declared to be British subjects. The status of 'British subject' flows from the possession of citizenship of one of the Commonwealth countries. It could best be described as the connecting link between the citizenship of the countries of the British Commonwealth. Australian citizenship was automatically acquired as from 26 January 1949 by persons who were British subjects at that date and who either (*a*) were born in Australia or New Guinea; or (*b*) were naturalised in Australia; or (*c*) had been residing in Australia during the five years immediately preceding 26 January 1949; or (*d*) were born outside Australia of fathers to whom (*a*) or (*b*) above applied (provided the persons concerned had entered Australia without being placed under any immigration restriction); or (*e*) were women who had been married to men who became Australian citizens under the above headings (provided that the women concerned had entered Australia without being placed under immigration restriction). For the purposes of the Act, 'Australia' includes the Territories of the Commonwealth which are not Trust Territories. By an amendment of the Act in 1950 it was further provided that Nauru shall be treated in the same manner as New Guinea.

Citizenship may be acquired in the following ways: (*a*) by birth in Australia; (*b*) by birth outside Australia, of a father who is an Australian citizen, provided that the birth is registered at an Australian Consulate; (*c*) by registration—Certificates of Registration as Australian citizens may be granted by the Minister to British subjects or Irish citizens who make application and satisfy the Minister that they can comply with specified requirements as to residence in Australia, good character and intention to reside permanently in Australia; (*d*) by naturalisation—Certificates of Naturalisation as Australian citizens may be granted by the Minister to aliens and protected persons who make application and can comply with requirements somewhat similar to those previously required under the *Nationality Act* 1920–1946. Requirements for naturalisation are: (i) as a rule five years residence in Australia is required, but residence in other British countries or service under a British government may be accepted (special concessions in the matter of residence qualifications in respect of persons who have voluntarily enlisted in the armed forces were made by an amending Act of 1952); (ii) the applicants must have an adequate knowledge of the responsibilities and privileges of citizenship. Certificates do not take effect until the applicant takes the oath of allegiance. The oath is now taken, and citizenship is conferred, at public ceremonies held in the locality of the applicant's place of residence, and presided over by the mayor or equivalent head of the local government authority.

The declaration of intention to apply for naturalisation, which was introduced by the original Act of 1948, is no longer compulsory, although it can still be made if an intending applicant so desires. This change was made by the amending Acts of 1955 and 1959 under the provisions of which aliens may lodge applications on completing 4½ years residence, but may not be granted naturalisation until five years residence has been completed

Under the Act the independence of married women in nationality matters is recognised, and British nationality was restored to those women who had lost it through marriage to aliens prior to 26 January 1949. Such women automatically became Australian citizens if they were born in Australia or had lived here for the five years prior to the commencement of the Act. Marriage does not affect a woman's nationality. Alien women who marry Australian citizens may, however, be naturalised under somewhat easier conditions than those which apply to other aliens.

Persons granted Australian citizenship by naturalisation and registration during 1965-66

The following tables show:

(*a*) the number of persons who became Australian citizens by reason of the grant of certificates of naturalisation and the countries in which such persons were ordinarily resident immediately before entering Australia or New Guinea: and

(*b*) the number of persons who became Australian citizens by reason of the grant of certificates of registration and the countries in which such persons were ordinarily resident immediately prior to entering Australia or New Guinea.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALISATION, 1965-66

NATIONALITY

Albanian	22
Argentinian	8
Australian protected person	215
Austrian	620
Belgian	45
Bolivian	3
Brazilian	2
British protected person	5
Bulgarian	45
Burmese	24
Byelorussian	25
Chinese	325
Czechoslovak	195
Danish	145
Dutch	4,330
Estonian	115
Filipino	6
Finnish	375
French	109
German	3,280
Greek	3,678
Guatemalan	1
Haitian	1
Hungarian	1,242
Indonesian	8
Iranian	14
Iraqi	4
Israeli	203
Italian	8,049
Japanese	37
Jordanian	6
Korean	1
Latvian	356
Lebanese	206
Lithuanian	150
Luxembourgeois	1
Moroccan	3
Nicaraguan	1
Norwegian	66
Peruvian	1
Polish	2,337
Portuguese	36
Romanian	119
Russian	518
Spanish	97
Stateless	299
Swedish	36
Swiss	115
Syrian	5
Thai	4
Turkish	26
Ukrainian	534
United Arab Republic	23
United States American	87
Venezuelan	2
Vietnamese	1
Yugoslav	3,163
Total	**31,324**

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALISATION, 1965–66—*continued*

COUNTRIES IN WHICH THESE PERSONS ORDINARILY RESIDED IMMEDIATELY BEFORE ENTERING AUSTRALIA OR NEW GUINEA

Afghanistan	3
Albania	12
Algeria	3
Argentina	24
Austria	1,462
Belgium	101
Bolivia	3
Brazil	36
British Solomon Islands	7
Bulgaria	20
Burma	35
Canada	14
Cambodia	1
Ceylon	2
Chile	8
China	615
Colombia	3
Congo	2
Cyprus	6
Czechoslovakia	64
Denmark	148
Dutch Guiana	2
Estonia	18
Ethiopia	17
Fiji	2
Finland	350
France	298
Germany	5.935
Greece	3,390
Guatemala	1
Honduras	1
Hong Kong	171
Hungary	625
India	11
Indonesia	145
Iran	13
Iraq	13
Ireland	2
Israel	217
Italy	8,805
Japan	38
Jordan	7
Kenya	8
Latvia	30
Lebanon	204
Libya	14
Lithuania	11
Luxembourg	1
Macao	4
Madagascar	1
Malaysia	9
Malta	2
Morocco	15
New Caledonia	15
New Hebrides	3
New Zealand	47
Nigeria	1
Norway	70
Pakistan	4
Panama	1
Papua and New Guinea	225
Paraguay	4
Peru	3
Philippines	22
Poland	781
Portugal	22
Rhodesia	3
Romania	98
Singapore	13
South Africa	18
Spain	91
Sudan	6
Sweden	101
Switzerland	215
Syria	3
Tahiti	3
Tanzania	13
Thailand	4
The Netherlands	4,165
Tonga	1
Tunisia	1
Turkey	40
Uganda	3
Ukraine	21
Union of Soviet Socialist Republics	49
United Arab Republic	300
United Kingdom	210
United States of America	112
Uruguay	3
Venezuela	21
Vietnam	5
West Indies	6
Yugoslavia	1,701
Total	31.324

The numbers of persons affected by certificates of naturalisation granted in 1965–66 according to State or Territory of residence were as follows: New South Wales, 8,429; Victoria, 12,786; Queensland, 2,283; South Australia, 3,995; Western Australia, 2,397; Tasmania, 612; Northern Territory, 76; Australian Capital Territory, 459; New Guinea, 287; Total, 31,324.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY REGISTRATION, 1965-66

NATIONALITY

Citizens of—	
Canada	25
Ceylon	340
Cyprus	208
India	156
Ireland	83
Kenya	1
Malaysia	66
Malta	266
New Zealand	60
Pakistan	30
Rhodesia	54
South Africa	183
United Kingdom and Colonies	2,815
Total	**4,287**

COUNTRIES IN WHICH THESE PERSONS ORDINARILY RESIDED IMMEDIATELY BEFORE ENTERING AUSTRALIA OR NEW GUINEA

Austria	2
Bahamas	3
Belgium	2
Brazil	1
British Solomon Islands Protectorate	3
Brunei	5
Bulgaria	1
Burma	56
Canada	43
Ceylon	335
China	15
Cyprus	194
Denmark	3
Fiji	45
France	3
Germany	5
Ghana	1
Gilbert and Ellice Islands	2
Greece	3
Hong Kong	80
India	321
Indonesia	10
Iran	2
Ireland	64
Israel	2
Italy	5
Japan	1
Jordan	2
Kenya	188
Lebanon	1
Libya	5
Malaysia	99
Malta	270
Mauritius	32
Morocco	1
New Hebrides	8
New Zealand	91
Nigeria	4
Norfolk Island	1
Ocean Island	1
Pakistan	47
Papua and New Guinea	12
Rhodesia	72
Seychelles	3
Singapore	90
South Africa	198
Spain	4
Sudan	13
Switzerland	2
Tanzania	7
Thailand	3
The Netherlands	4
Tonga	1
Trinidad	2
Tunisia	2
United Arab Republic	96
United Kingdom	1,792
United States of America	6
Venezuela	2
West Indies	3
Yugoslavia	2
Zambia	16
Total	**4,287**

Persons granted Australian citizenship by naturalisation, 1945 to 1966

The number of persons granted Australian citizenship by naturalisation, according to previous nationality, is shown for the period January 1945–December 1947, for each year from 1948 to 1955, for the period January–June 1956, and for each year 1956–57 to 1965–66 in *Australian Immigration: Consolidated Statistics*, No. 1. 1966 published by the Department of Immigration, and in previous issues of this Year Book. The following table, which is derived from the former publication, sets out the total number of persons of nationalities with greater representation who were granted Australian citizenship from January 1945 to June 1966.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALISATION JANUARY 1945 TO JUNE 1966

Former nationality	Persons granted citizenship	Former nationality	Persons granted citizenship
Albanian	1,079	Lebanese	3,987
Austrian	7,506	Lithuanian	8,252
Belgian	438	Norwegian	1,126
Bulgarian	1,207	Polish	61,225
Chinese	3,527	Portuguese	371
Czechoslovak	10,946	Romanian	2,734
Danish	1,994	Russian	8,687
Dutch	59,817	Spanish	999
Estonian	5,819	Stateless	14,126
Finnish	1,736	Swedish	581
French	1,853	Swiss	1,507
German	37,996	Syrian	135
Greek	41,142	Turkish	253
Hungarian	27,167	Ukrainian	19,189
Indonesian	147	United Arab Republic	373
Israeli	3,568	United States American	1,029
Italian	112,842	Yugoslav	32,015
Japanese	620	Others	2,594
Latvian	17,337	**Total**	**495,924**

Migrant integration

An integration programme operates to aid the social settlement of migrants into the Australian community. The programme includes:

English-language tuition arranged by the Department of Immigration to assist migrants to overcome their language problems. The services provided include instruction in Europe, English-language classes on board ships travelling to Australia, and adult education classes within Australia which are also supplemented by radio and correspondence courses. A course of instruction on gramophone records which has been developed from the radio course is also available. Approximately 580,000 migrants have taken advantage of the English-language facilities. By 30 June 1966, 14,182 migrants had enrolled in 902 language classes throughout Australia and 6,878 students had enrolled to receive instruction through the correspondence lessons.

Field surveys are undertaken which embrace sociological research studies of migrant integration and furnish information on such questions as the habits and behaviour of migrants within the community, the practical difficulties they experience during the process of integration, their ability to understand and accept their obligations and responsibilities as members of the Australian community, and the attitude of the native-born to the migrant.

Social worker service is available through a small staff of trained social workers by the Department of Immigration. Welfare officers are also employed in several branches and accommodation advisory officers are available to provide information to migrants resident in Sydney and Melbourne.

The Good Neighbour Movement operates as a voluntary organisation throughout Australia to assist in the integration of migrants. Membership of the movement is made up of hundreds of community organisations whose activities are co-ordinated by State Councils. The Commonwealth Government assists each Council financially through grants to cover administrative expenses.

Citizenship Conventions. The principal occasion for community and Government to meet together and discuss the major issues involved in the successful integration of the migrant population is provided by the Citizenship Conventions convened in Canberra from time to time by the Commonwealth Government. Delegates from a wide range of community organisations and from Commonwealth and State Governments participate. The subjects discussed relate not only to the integration of migrants but also to the concept of Australian citizenship and the role of immigration in Australia's development.

Population of External Territories

Ordinances of the individual external territories under the control of Australia provide for a census of the population to be taken on the day prescribed for the taking of a census in the Commonwealth of Australia. The following table shows the population of the Territories of Christmas Island, Cocos (Keeling) Islands, Norfolk Island, Papua, the Trust Territory of New Guinea and the Trust Territory of Nauru at the censuses of 30 June 1961 and 30 June 1966.

POPULATION: EXTERNAL TERRITORIES, 30 JUNE 1961 AND 1966

Territory	Census 30 June 1961			Census 30 June 1966(*a*)		
	Males	Females	Persons	Males	Females	Persons
Christmas Island	1,963	1,136	3,099	2,151	1,230	3,381
Cocos (Keeling) Islands	333	273	606	375	309	684
Norfolk Island	421	423	844	566	586	1,152
Papua	(*b*) 5,490	(*b*) 4,304	(*b*) 9,794	(*c*) 8,357	(*c*) 6.093	(*c*) 14,450
Trust Territory of New Guinea	(*b*) 9,158	(*b*) 6.378	(*b*) 15.536	(*c*) 11,732	(*c*) 8.554	(*c*) 20.286
Trust Territory of Nauru	3,019	1,594	4,613	3.696	2,360	6,056

(*a*) Preliminary results. (*b*) Non-indigenous population only. The indigenous population was estimated to be—Papua, 513,648, Trust Territory of New Guinea, 1,433,383. (*c*) Non-indigenous population only. The indigenous population was estimated to be—Papua 586,147, Trust Territory of New Guinea, 1,562,153.

Further particulars concerning the indigenous populations of the territories are given in the chapter The Territories of Australia.

The Aboriginal population of Australia

In Year Book No. 17, pages 951–61, a brief account was given of the Australian Aboriginal population, its origin, its numbers as estimated from time to time and the steps taken for its protection. On pages 914–16 of Year Book No. 22 particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687–96 of Year Book No. 23.

The Aborigines are scattered over the whole of the mainland, but are mostly in the Northern Territory, Queensland and Western Australia. Particulars of the number in each State and Territory at the census of 30 June 1961 are shown in the following table. Persons with Aboriginal blood to the extent of one-half and with European blood to the extent of one-half are included in the numbers of the population and are of course enumerated at the census.*

ABORIGINAL POPULATION, STATES AND TERRITORIES, 30 JUNE 1961

State or Territory	Full-blood					Other(*a*) (enumerated at the census)			Total full-blood and other
	Number enumerated at census, 30 June 1961			Estimated number out of contact at census	Total number as recorded or estimated at 30 June 1961				
	Males	Females	Persons			Males	Females	Persons	
New South Wales	791	697	1,488	..	1,488	6,703	6.525	13.228	14.716
Victoria	141	112	253	..	253	758	785	1.543	1.796
Queensland	4,686	4.000	8.686	..	8.686	5,460	5.550	11.010	19.696
South Australia	1.181	966	2.147	..	2.147	1,426	1.311	2.737	4.884
Western Australia	4,243	3,878	8,121	2,000	10,121	4,108	4,047	8.155	18.276
Tasmania						24	14	38	38
Northern Territory	7,857	7,585	15,442	1,944	17,386	1,156	1,162	2,318	19.704
Aust. Cap. Territory	..	..	..	..	..	78	65	143	143
Australia	**18,899**	**17,238**	**36,137**	**3,944**	**40.081**	**19,713**	**19.459**	**39.172**	**79,253**

(*a*) This category covers persons with European blood to the extent of one-half and blood of the Aboriginal race to the extent of one-half.

Torres Strait Islanders, both full-blood and half European blood, are not included as Aborigines, but are included in the populations shown on pages 163–86. At the 1961 census there were 4,972 full-blood and 245 half European blood Torres Strait Islanders, of whom 4,970 and 237 respectively were recorded in Queensland.

International statistics of population

In the following tables the population, density, rate of growth, natural increase and masculinity are shown in respect of all countries which had an estimated population of at least one million persons in 1964, plus Papua. The source of these figures is the 1965 *Demographic Yearbook* which is prepared and published by the Statistical Office of the United Nations. The tables include figures varying in reliability and accuracy, there being considerable variation in the quality of demographic statistics as between countries, but this information has been shown to provide some form of guide as to the magnitude and trend of population movements in overseas countries.

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* *See* Appendix for results of *Constitution Alteration (Aboriginals)* 1967 Referendum.

Where the information available to the Statistical Office of the United Nations relates to only part of the population of a country, the population characteristic (e.g. rate of growth), or vital statistics rate (e.g. marriages), has been omitted from the tables, and this is indicated by a footnote. For fuller particulars of the differences in the quality of the statistics and their reliability and for other qualifications, reference should be made to the detailed explanations contained in the *Demographic Yearbook* of the Statistical Office of the United Nations (*see* particularly Technical Notes on Statistical Tables and footnotes to the tables).

Population, rate of growth and density: world, continents and regions

The following table shows for the world, continents, and regions, estimated population in 1930, 1940, 1950, 1958, 1960, and 1964. The annual rate of increase (per cent), together with the average annual increase, during the period 1958–64, is also shown. Population figures have been adjusted for under-enumeration and errors in estimation. In preparing these figures, the Population Branch of the United Nations revises, from time to time, the estimates for previous years as new data become available, for example, from a census. The figures are estimates only, and as such are subject to a substantial margin of error.

POPULATION, DENSITY, AND RATE OF INCREASE FOR THE WORLD AND CONTINENTS—SELECTED YEARS

(*Source:* United Nations *Demographic Yearbook*, 1965)

Continent and region	Population								Density (persons per square mile) 1964
	Estimates of mid-year population (millions)						Annual rate of increase 1958–64 (per cent)	Average annual increase 1958–64 (millions)	
	1930	1940	1950	1958	1960	1964			
World total	**2,070**	**2,295**	**2,517**	**2,903**	**3,003**	**3,220**	**1.7**	**53.0**	**62**
Africa	*164*	*191*	*222*	*264*	*277*	*303*	*2.3*	*6.5*	*26*
Western Africa	48	58	67	84	88	96	2.2	2.0	41
Eastern Africa	46	54	63	72	75	83	2.3	1.8	34
Northern Africa	39	44	53	63	66	72	2.4	1.5	23
Middle Africa	21	23	25	28	30	32	1.9	0.7	13
Southern Africa	10	12	14	17	18	20	2.4	0.5	18
America	*242*	*274*	*329*	*394*	*412*	*448*	*2.2*	*9.0*	*28*
Northern America	134	144	166	192	199	211	1.6	3.2	26
Latin America	108	130	163	202	213	237	2.7	5.8	31
Tropical South America	55	67	84	107	113	126	2.8	3.2	23
Middle America	22	27	35	44	47	53	3.2	1.5	54
Temperate Sth. America	19	22	27	31	33	36	2.1	0.8	18
Caribbean	12	14	17	20	20	22	2.3	0.3	246
Asia	*1,120*	*1,244*	*1,381*	*1,605*	*1,659*	*1,783*	*1.8*	*29.7*	*168*
East Asia	591	634	684	773	794	840	1.4	11.2	186
Mainland region	501	533	563	626	654	691	1.4	9.2	161
Japan	64	71	83	92	93	97	1.0	0.8	679
Other East Asia	26	30	38	45	47	52	2.3	1.2	518
South Asia	529	610	697	832	865	943	2.1	18.5	153
Middle South Asia	371	422	479	566	587	636	2.0	11.7	243
South East Asia	127	150	173	210	219	242	2.4	5.3	140
South West Asia	31	38	45	56	59	65	2.4	1.5	36
Europe	*355*	*380*	*392*	*418*	*425*	*441*	*0.9*	*3.8*	*231*
Western Europe	108	113	123	132	135	142	1.2	1.7	370
Southern Europe	93	103	108	116	117	122	0.8	1.0	238
Eastern Europe	89	96	88	95	97	99	0.7	0.7	259
Northern Europe	65	68	73	75	76	78	0.7	0.5	124
Oceania	*10.0*	*11.1*	*12.7*	*15.0*	*15.7*	*17.1*	*2.2*	*0.35*	*5*
Australia and New Zealand	8.0	8.7	10.1	12.1	12.6	13.7	2.1	0.27	5
Melanesia	1.6	1.8	1.9	2.1	2.2	2.4	2.1	0.05	13
Polynesia and Micronesia	0.4	0.6	0.7	0.8	0.9	1.0	3.5	0.03	88
Union of Soviet Socialist Republics	*179*	*195*	*180*	*207*	*214*	*228*	*1.6*	*3.5*	*26*

Population, density, rate of growth, natural increase, and masculinity of selected countries

Certain details of the population of the more populous countries within continental groups are shown in the following table. As explained above, reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1965, regarding geographical units used, boundaries of areas, reliability of estimates, etc.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE, AND MASCULINITY—SELECTED COUNTRIES

(*Source:* United Nations *Demographic Yearbook*, 1965)

Country	Population mid-year 1964 (thousands)	Density 1964 (persons per square mile)	Annual rate of increase 1958-64 (per cent)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand population)	Year	Rate (number of males per 100 females)
Africa—							
Nigeria	56,400	158	2.0	..	(*a*)	1963	(*a*)
United Arab Republic, Egypt	28,900	75	2.7	..	(*a*)	1960	101.2
Ethiopia	22,200	47	1 8	..	(*a*)	1960–61	89.1
South Africa	17,474	36	2 4	..	(*a*)	1960	101.1
Congo, Democratic Republic	15 300	18	2 1	1955–57	23	1955–57	94.4
Sudan	13,180	13	2 8	1955	33.2	1956	102.2
Morocco	12,959	75	2 8	1962	27.4	1960	99.9
Algeria	10,975	13	0.9	..	(*a*)	1960	(*a*)
Tanzania—							
Tanganyika	9,990	28	1.9	1957	21–22	1957	92.9
Zanzibar	335	329	1.9	1958	(*a*)	1958	111.2
Kenya	9,104	41	2.9	1962	30	1962	98.1
Ghana	7,537	83	2.7	1960	23–28	1960	102.2
Uganda	7,367	80	2.5	1959	22	1959	100.9
Mozambique	6,872	23	1.3	..	(*a*)	1960	91.8
Madagascar	6,180	28	3.1	..	(*a*)	1956	125.1
Cameroon	5,103	28	2 1	..	(*a*)	..	(*a*)
Angola	5,084	10	1 4	..	(*a*)	1960	103.7
Upper Volta	4,750	44	2 5	1960–61	18	1960–61	100.8
Tunisia	4,565	73	2.0	1959	21	1956	107.2
Mali	4,485	10	2 3	1960–61	31	1960–61	(*a*)
Southern Rhodesia	4,140	28	3.3	1961	34.1	1962	106.2
Malawi	3,900	85	2.8	..	(*a*)	1961	(*a*)
Ivory Coast	3,750	31	3.3	1961	22.8	1957–58	(*a*)
Zambia	3,600	13	2 9	1962–63	31.8	1963	98.4
Guinea	3,420	36	2 8	1955	22	1955	90.8
Senegal	3,400	44	2.3	1960–61	22.6	1960–61	97.1
Niger	3,237	8	3.3	1959–60	25	1959–60	94.3
Rwanda	3,018	298	3.1	1957	38.3	1952	(*a*)
Burundi	2,800	262	2 5	1957	29.2	1965	(*a*)
Somalia	(*b*) 2,420	10	3 5	..	(*a*)		(*a*)
Dahomey	(*c*) 2,300	52	2 9	1961	28.0	1961	96 1
Sierra Leone	2,240	80	2 1	..	(*a*)	1963	98 4
Togo	1,603	73	2 8	1961	26	1958–60	91 9
Libya	1,559	3	3.7	..	(*a*)	1964	108.3
Central African Republic	1,320	5	2.2	1959–60	18	1959–60	91.5
North America—							
United States of America	192,120	54	1.6	1965	10.0	1960	97.1
Mexico	39,643	52	3.2	1965	35 8	1960	99 5
Canada	19,271	5	2 0	1965	13 9	1961	102.2
Cuba	7,434	168	2 1	1959–61	22–25	1953	105 0
Haiti	4,551	425	2 3	1959–61	22–25	1950	94 5
Guatemala	4,305	104	3 3	1965	26 7	1964	102.7
Dominican Republic	3,494	186	3 6	1959–61	32–35	1960	101 6
El Salvador	2,824	342	3.3	1965	36 0	1961	97.1
Puerto Rico	2,584	751	2.0	1965	23 6	1960	98.0
Honduras	2,209	52	3.3	1959–61	32–34	1961	99.3
Jamaica	1,739	412	1 8	1965	31 5	1960	92.5
Nicaragua	1,597	28	3.1	1959–61	33–35	1963	97.5
Costa Rica	1,387	70	4.3	1964	32.0	1963	100.2
South America—							
Brazil	78,809	23	3.1	1959–61	29–31	1960	99.7
Argentina	22,022	21	1.6	1964	13.5	1960	100.6
Colombia	17,482	39	3.2	1959–61	26–32	1964	(*a*)
Peru	11,298	23	3 0	1959–61	28–31	1961	98.9
Venezuela	8,427	23	3 4	1959–61	35–41	1961	103.3
Chile	8,391	28	2.3	1964	21 6	1960	96.1
Ecuador	4,881	44	3.1	1959–61	28–35	1962	99.9
Bolivia	3,647	8	1.4	1959–61	21–23	1950	96.2
Uruguay	2,682	36	1 4		(*a*)	1963	99.0
Paraguay	1,968	13	2.6	1959–61	25–31	1962	97.2
Asia—							
China (mainland)	690,000	186	1 5	1957	23	1953	107.6
India	471 624	401	2 3	1963–64	25.5	1961	106.2
Indonesia	102,200	179	2 2	1962	21 6	1961	97.3
Pakistan	100,762	275	2.1	1962	26–30	1961	111.1

For footnotes *see* next page.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE, AND MASCULINITY—SELECTED COUNTRIES—*continued*

Country	Population mid-year 1964 (thousands)	Density 1964 (persons per square mile)	Annual rate of increase 1958–64 (per cent)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand population)	Year	Rate (number of males per 100 females)
Asia—*continued*							
Japan	96,906	679	1.0	1965	11.5	1965	96.6
Philippines	31,270	269	3.3		(*a*)	1960	101.8
Thailand	29,700	150	3.0	1956	22	1960	100.4
Turkey in Asia	28,155	96	2.8		(*a*)	1965	(*a*)
Korea, Republic of	27,633	728	2.9	1955–60	28.7	1960	100.8
Burma	24,229	93	2.0	1955	15	1941	104.0
Iran	22,860	36	2.5	..	(*a*)	1956	103.6
Vietnam (North)	18,400	300	3.4	..	(*a*)	1960	93.4
Vietnam, Republic of	15,715	238	3.3	1960	17	..	(*a*)
Afghanistan	15,227	62	2.7	..	(*a*)	..	(*a*)
China, Republic of (Formosa)	12,070	870	3.4	1965	27.2	1956	103.8
Korea (North)	11,800	254	3.0	..	(*a*)	1944	(*a*)
Ceylon	10,965	433	2.6	..	(*a*)	1963	110.6
Nepal	9,920	181	1.7	1961	20.3	1961	96.9
Malaya	7,810	153	3.1	1964	31.0	1957	106.5
Iraq	7,004	41	1.7	..	(*a*)	1957	101.0
Saudi Arabia	6,630	8	1.7	..	(*a*)	..	(*a*)
Cambodia	6,120	88	3.0	1959	21.7	1962	100.7
Syria	5,200	73	3.2	..	(*a*)	1960	105.6
Yemen	5,000	67	2.2	..	(*a*)	..	(*a*)
Hong Kong	3,692	9,267	4.4	1965	22.3	1961	105.8
Israel	2,476	311	3.6	1964	(*d*) 16.2	1961	103.0
Lebanon	2,280	567	2.4	..	(*a*)	..	(*a*)
Laos	1,960	21	2.3	..	24	..	(*a*)
Jordan	1,898	54	3.1	..	(*a*)	1961	103.5
Singapore	1,820	8,114	3.1	1965	24.4	1957	111.7
Europe—							
Germany—							
Federal Republic of	56,097	585	1.3	1965	6.7	1961	89.4
Eastern	16,028	386	−0.2	1963	4.9	1964	84.1
West Berlin	2,193	11,808	−0.2	1965	6.2	1961	73.2
East Berlin	1,068	6,866	−0.5	1963	0.6	1964	77.8
United Kingdom	54,213	575	0.7	1965	6.9	1961	93.6
Italy	51,090	440	0.7	1965	9.2	1961	96.0
France	48,411	228	1.3	1965	6.5	1962	94.6
Spain	31,339	161	0.8	1965	12.6	1960	94.2
Poland	31,161	259	1.3	1965	9.9	1960	93.7
Yugoslavia	19,279	194	1.1	1965	12.2	1961	95.1
Romania	18,927	207	0.8	1965	6.0	1956	94.6
Czechoslovakia	14,058	285	0.7	1965	6.4	1961	95.2
Netherlands	12,127	935	1.4	1965	11.9	1960	99.2
Hungary	10,120	282	0.4	1965	2.4	1960	93.2
Belgium	9,378	795	0.6	1965	4.3	1961	95.8
Portugal	9,106	256	0.7	1965	12.5	1960	92.0
Greece	8,510	168	0.7	..	(*a*)	1961	95.2
Bulgaria	8,144	192	0.9	1965	7.4	1956	99.6
Sweden	7,661	44	0.6	1965	5.8	1960	99.5
Austria	7,215	223	0.5	1965	4.9	1961	87.3
Switzerland	5,874	368	2.1	1965	9.4	1960	96.3
Denmark	4,720	285	0.7	1965	7.9	1960	98.3
Finland	4,580	36	0.8	1965	7.3	1960	93.0
Norway	3,694	28	0.8	1965	8.4	1960	99.3
Ireland	2,849	106	0.0	1965	10.7	1961	101.1
Turkey in Europe	2,522	277	2.9	..	(*a*)	1965	(*a*)
Albania	1,814	163	3.1	1964	29.1	1960	105.6
Oceania—							
Australia	11,136	3	2.1	1965	10.8	1966	101.4
New Zealand	2,594	26	2.2	1965	14.1	1966	100.8
New Guinea (Aust. Admin.)	1,536	16	2.3	..	(*a*)	1966	(*e*)137.2
Papua	562	8	2.5	..	(*a*)	1966	(*e*)137.2
U.S.S.R.—							
Union of Socialist Soviet Republics	227,687	26	1.6	1965	11.2	1959	81.9

(*a*) Not available or information relates to a segment of population only. (*b*) 1965. (*c*) Indigenous population. (*d*) Jewish population. (*e*) Non-indigenous population.

CHAPTER 9

VITAL STATISTICS

The tables in this chapter are confined to the principal characteristics of vital statistics for Australia, and relate, in the main, to the year 1966 for marriages and 1965 for births, deaths and infant deaths. Comparisons have been restricted, in general, to the individual years 1962 to 1966 and the five-year periods 1941–45 to 1961–65, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletin, *Demography*. Commencing with the year 1963 a separate annual bulletin *Causes of Death* has been published. This contains the detailed tables based on the International Statistical Classification of Diseases, Injuries and Causes of Death which were formerly published in *Demography*. Current information is published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics* and the *Austrailan Demographic Review* (a mimeographed series issued at intervals throughout the year on population and vital statistics).

Figures of births and deaths for Australia are exclusive throughout of full-blood Aborigines.*

Vital statistics for the principal countries of the world are set out in International Vital Statistics at the end of this chapter.

Provisions for registration and compilation of statistics

In Australia vital statistics are compiled from information supplied for the registration of births, deaths and marriages. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths, and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853, and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration having been taken over in respect of the Northern Territory from South Australia in 1911 and in respect of the Australian Capital Territory from New South Wales in 1930. The authority responsible for the registration of births, deaths and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

Information concerning a birth is required to be supplied within 28 days in the Australian Capital Territory and the Northern Territory, 42 days in South Australia, and 60 days in other States. For the registration of a death the period allowed is 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, Australian Capital Territory and Northern Territory, 21 days in Victoria, and 30 days in New South Wales and Queensland.

The *Marriage Act* 1961 came into operation on 1 September 1963, placing the marriage laws of all States, the mainland Territories and Norfolk Island on a uniform basis. Provision is made for the celebration of marriage by ministers of religion registered with the Registrar of Ministers of Religion appointed in each State and Territory by the Attorney-General, and by certain civil officers. In all cases the authorised celebrant is required to register particulars of the parties married with the appropriate registering authority in each State or Territory. The celebrant is requested to register a marriage as soon as practicable and in any case not later than fourteen days after the marriage.

The registration of stillbirths is compulsory in all the States and Territories except Tasmania. Western Australia in 1908 was the first State to introduce compulsory registration, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, the Northern Territory in 1949, Victoria in 1953, and Queensland in 1959. Stillbirths are entered in both the birth and death registers in New South Wales and Western Australia, in the birth register in the Australian Capital Territory and the Northern Territory, and in separate stillbirth registers in Victoria, South Australia and Tasmania. Stillbirths are not entered in a register in Queensland but the papers are kept for a period of at least ten years. In this chapter stillbirths have been excluded from all tables of births and deaths and are shown only in those specially relating to stillbirths.

The data for the compilation of vital statistics are obtained from registry records and dispatched, through the Statistical Office in each State and Territory, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonwealth Statisticians compile and publish statistics relating to their respective States.

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* *See* Appendix for results of *Constitution Alteration (Aboriginals)* 1967 Referendum.

Marriages

Numbers of marriages and crude marriage rates

The numbers of marriages registered in each State and Territory in five-year periods from 1941–45 to 1961–65, and for each of the years 1962 to 1966, and crude marriage rates for the same periods are shown in the following tables. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 575. A graph showing the number of marriages in each year from 1870 to 1966 appears on plate 18 opposite.

MARRIAGES: STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941–45 . .	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946–50 . .	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951–55 . .	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
1956–60 . .	28,432	20,422	10,254	6,517	5,145	2,573	190	321	73,854
1961–65 . .	31,788	23,262	11,437	7,514	5,768	2,700	248	533	83,250
Annual total—									
1962 . .	30,360	22,393	10,642	7,021	5,466	2,485	243	480	79,090
1963 . .	30,999	22,061	11,431	7,302	5,755	2,579	260	529	80,916
1964 . .	32,633	24,169	11,752	7,765	6,023	2,869	233	569	86,013
1965 . .	35,176	26,421	12,967	8,680	6,448	2,888	296	670	93,546
1966 . .	35,575	27,089	13,325	9,051	7,001	2,946	312	747	96,046

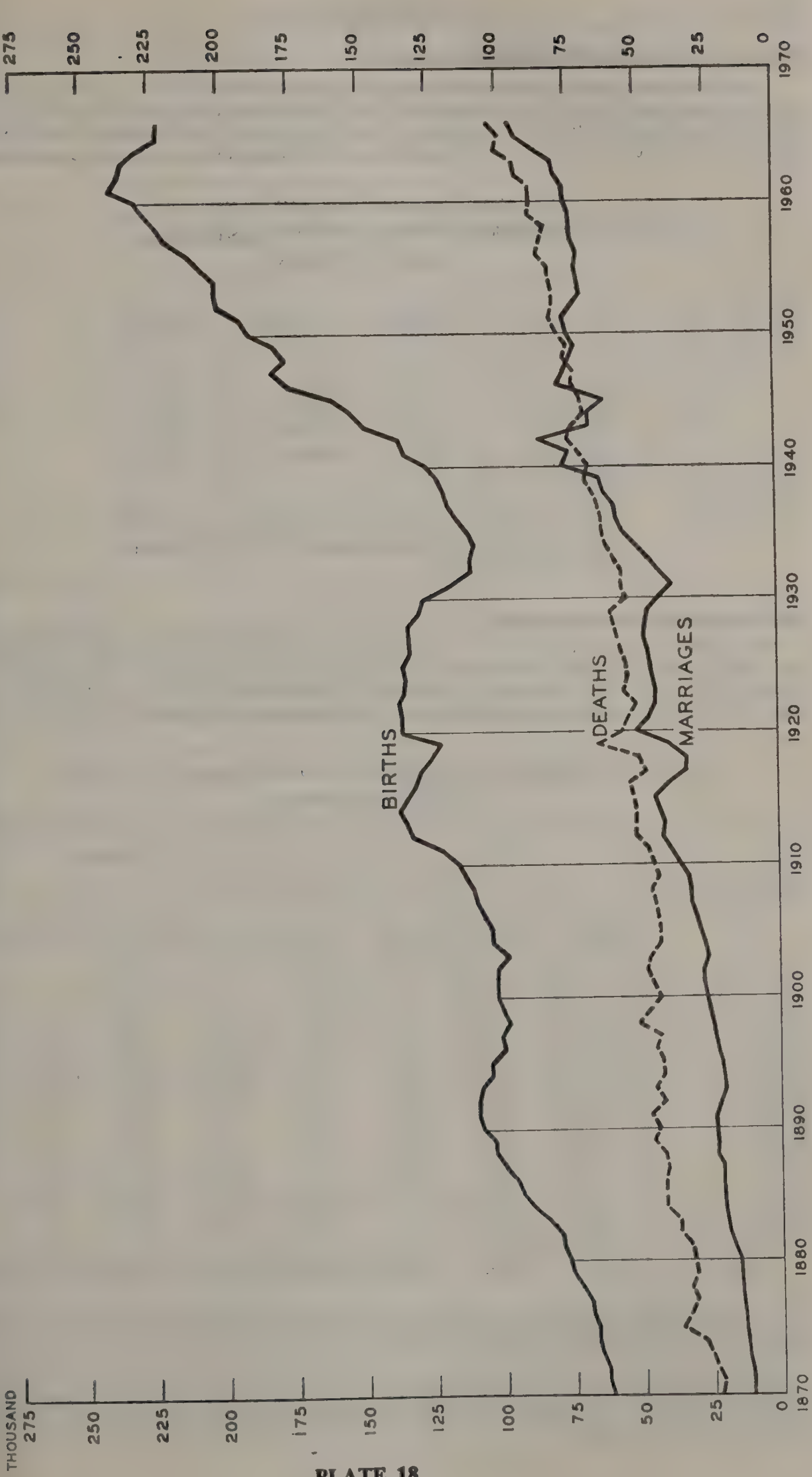
CRUDE MARRIAGE RATES(*a*): STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1941–45 .	9.97	9.86	10.04	10.61	9.74	8.61	7.2	7.6	9.94
1946–50 .	9.90	9.72	9.41	9.87	10.01	9.56	9.4	9.4	9.77
1951–55 .	8.41	8.34	7.91	8.11	8.44	8.35	9.1	8.20	8.29
1956–60 .	7.70	7.50	7.14	7.26	7.36	7.69	8.63	7.51	7.50
1961–65(*b*) .	7.85	7.64	7.27	7.41	7.42	7.49	8.13	7.25	7.62
Annual rate—									
1962(*b*) . .	7.62	7.51	6.90	7.13	7.23	6.99	8.6	7.3	7.39
1963(*b*) . .	7.66	7.26	7.29	7.25	7.40	7.15	8.6	7.2	7.42
1964(*b*) . .	7.95	7.79	7.35	7.51	7.56	7.87	7.1	7.1	7.74
1965(*b*) . .	8.43	8.35	7.95	8.16	7.92	7.85	8.4	7.6	8.25
1966 . .	8.40	8.42	8.02	8.30	8.37	7.93	8.4	7.7	8.32

(*a*) Number of marriages per 1,000 of mean population. (*b*) Recalculated from population figures revised in accordance with preliminary results of the census of 30 June 1966.

NOTE. In some instances rates are based on too few marriages to warrant calculation to the second decimal place.

The crude marriage rates for Australia and the more populous countries of the world are shown for the latest available year in International Vital Statistics at the end of this chapter.



BIRTHS, DEATHS AND MARRIAGES
AUSTRALIA, 1870 TO 1966

PLATE 18

Marriage rates based on marriageable population

As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over, the corresponding rates have been calculated for Australia for the nine census periods to 1960–62. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows.

PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA

1880-82 TO 1960-62

Period	Rate(*a*)	Period	Rate(*a*)
1880–82	48.63	1932–34	42.88
1890–92	44.04	1946–48	71.24
1900–02	42.14	1953–55	65.32
1910–12	50.12	1960–62	62.27
1920–22	55.97		

(*a*) Average annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.

Age and marital status at marriage

Particulars of age at marriage in age groups, and previous marital status, of bridegrooms and brides in 1966 are given hereunder. There were 14,148 males under 21 years of age married during 1966, while the corresponding number of females was 41,285. At the other extreme there were 1,073 bridegrooms and 576 brides in the age group 65 years and over.

AGE AND MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1966(*a*)

Age at marriage (years)	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
Under 20	7,917	1	..	7,918	28,882	7	6	28,895
20–24	46,683	20	81	46,784	45,780	88	360	46,228
25–29	22,060	74	682	22,816	8,145	167	1,049	9,361
30–34	5,771	127	990	6,888	2,061	220	1,050	3,331
35–39	2,459	193	1,049	3,701	932	288	972	2,192
40–44	1,169	252	897	2,318	512	384	815	1,711
45–49	511	338	727	1,576	315	523	626	1,464
50–54	303	468	534	1,305	194	462	397	1,053
55–59	170	461	316	947	123	403	204	730
60–64	95	437	188	720	91	327	87	505
65 and over	101	838	134	1,073	75	440	61	576
Total	87,239	3,209	5,598	96,046	87,110	3,309	5,627	96,046

(*a*) Corresponding particulars for 1965 are published in *Demography*, Bulletin No. 83, 1965 and in *Australian Demographic Review* No. 227, *Marriages 1965*.

In the following table the proportional distribution of bridegrooms and brides according to previous marital status is shown in five year-periods from 1936–40 to 1961–65 and for each of the years 1962 to 1966.

MARITAL STATUS OF BRIDEGROOMS AND BRIDES: PROPORTIONAL DISTRIBUTION, AUSTRALIA, 1936 TO 1966

(Per cent)

Period	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
1936–40 . .	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941–45 . .	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1946–50 . .	88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00
1951–55 . .	88.77	4.63	6.60	100.00	88.04	4.81	7.15	100.00
1956–60 . .	89.86	4.18	5.96	100.00	88.80	4.47	6.73	100.00
1961–65 . .	90.55	3.68	5.77	100.00	90.04	3.87	6.09	100.00
1962 . .	90.18	3.87	5.95	100.00	89.58	4.04	6.38	100.00
1963 . .	90.53	3.77	5.70	100.00	90.01	3.85	6.14	100.00
1964 . .	90.78	3.53	5.69	100.00	90.30	3.74	5.96	100.00
1965 . .	91.01	3.35	5.64	100.00	90.70	3.49	5.81	100.00
1966 . .	90.83	3.34	5.83	100.00	90.69	3.45	5.86	100.00

The relative ages of bridegrooms and brides in 1966 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1966(a)

Age of bridegroom (years)	Total bridegrooms	Age of bride (years)							
		Under 15	15–19	20–24	25–29	30–34	35–39	40–44	45 and over
Under 20 .	7,918	3	6,621	1,254	33	7	..	..	.
20–24 . .	46,784	5	17,750	27,240	1,615	136	30	6	2
25–29 . .	22,816	..	3,845	14,013	4,129	609	173	32	15
30–34 . .	6,888	..	528	2,689	2,170	974	348	126	53
35–39 . .	3,701	..	112	738	924	848	590	327	162
40–44 . .	2,318	..	23	196	320	449	527	436	367
45–49 . .	1,576	..	4	58	106	180	295	271	562
50–54 . .	1,305	..	2	23	41	85	135	236	783
55–59 . .	947	..	1	13	14	25	62	125	707
60–64 .	720	..	1	3	5	14	22	41	634
65 and over	1,073	..	..	1	4	4	10	11	1,043
Total brides	96,046	8	28,887	46,228	9,361	3,331	2,192	1,711	4,328

(a) Corresponding particulars for 1965 are published in *Demography*, Bulletin No. 83 1965 and in *Australian Demographic Review* No. 227, *Marriages 1965*.

The average age at marriage of brides and bridegrooms has declined during recent years. The average ages, in years, of brides for each of the five years to 1966 were: 1962, 24.68; 1963, 24.42; 1964, 24.31; 1965, 24.09; and 1966, 24.02. The average ages, in years, of bridegrooms were: 1962, 28.03; 1963, 27.76; 1964, 27.58; 1965, 27.24 ;and 1966, 27.10. The difference in the average age at marriage between brides and bridegrooms is generally just over three years, the difference in 1966 being 3.08 years.

Previous marital status

The following table shows the relative marital status of bridegrooms and brides in 1966.

MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1966

Marital status of bridegrooms	Total bridegrooms	Marital status of brides		
		Spinsters	Widows	Divorced
Bachelors . . .	87,239	83,164	1,118	2,957
Widowers . . .	3,209	975	1,451	783
Divorced . . .	5,598	2,971	740	1,887
Total brides .	**96,046**	**87,110**	**3,309**	**5,627**

Countries of birth of persons marrying

The following table shows the relative countries of birth of bridegrooms and brides married in 1966.

RELATIVE COUNTRIES OF BIRTH OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1966(*a*)

Country of birth of bridegroom	Country of birth of bride											Total bridegrooms
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Netherlands	Malta	Yugoslavia	Other European	Other and unspecified	
Australia . .	63,934	247	3,904	799	46	172	593	137	59	426	625	70,942
New Zealand .	612	47	47	5	1	..	6	3	..	11	10	742
United Kingdom and Ireland .	5,140	65	1,716	130	8	16	100	32	3	70	148	7,428
Germany .	900	22	150	325	11	12	41	11	17	94	41	1,624
Greece . .	147	5	17	8	3,701	7	4	3	6	8	76	3,982
Italy . .	773	8	91	62	19	2,160	32	22	32	50	38	3.287
Netherlands .	902	9	128	50	..	8	317	10	2	26	29	1,481
Malta . .	229	1	52	12	6	3	10	548	1	6	13	881
Yugoslavia .	317	5	34	90	48	64	13	10	502	71	24	1,178
Other European	971	23	159	220	34	22	38	10	53	765	80	2,375
Other and unspecified .	1,076	17	152	43	88	15	29	10	8	44	644	2,126
Total brides	**75.001**	**449**	**6,450**	**1,744**	**3.962**	**2,479**	**1,183**	**796**	**683**	**1,571**	**1,728**	**96,046**

(*a*) Corresponding particulars for 1965 are published *Demography*, Bulletin No. 83, 1965 and in *Australian Demographic Review* No. 227, *Marriages 1965*.

Occupation of bridegrooms

The distribution of the 96,046 bridegrooms for 1966 among classes of occupations was as follows: craftsmen, 31,978; administrative and clerical workers, 13,006; labourers, 11,187; rural and mining workers, 8,186; professional and technical workers, 10,108; workers in transport and communication, 6,853; service, sport, and other workers, 7,009; sales workers, 5,930; persons not in the work force, 1,789.

Celebration of marriages

Under the provisions of the *Marriage Act* 1961–1966 marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar of Ministers of Religion in each State or Territory, or by certain civil officers, in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1964 belonged to more than fifty different denominations, some of which, however, have only very few adherents. The categories 'Ministers of Other recognised denominations' and 'Other ministers' combine ministers of some of these denominations. The figures for 1966 are shown in the following table.

MARRIAGES IN EACH DENOMINATION: STATES AND TERRITORIES, 1966(*a*)

Category of celebrant	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									No.	Proportion of total
Ministers of religion—										
Recognised denominations—										
Church of England	11,327	6,079	3,448	1,894	2,235	1,097	48	192	26,320	27.4
Roman Catholic	9,882	7,631	3,644	1,814	1,851	652	88	246	25,808	26.9
Methodist	3,162	2,909	1,911	2,258	817	416	34	28	11,535	12.0
Presbyterian	3,195	4,097	1,931	358	392	141	4	48	10,166	10.6
Orthodox	1,544	1,761	111	259	63	18	25	18	3,799	4.0
Baptist	567	435	232	201	101	79	..	7	1,622	1.7
Lutheran	148	268	373	495	35	7	12	18	1,356	1.4
Congregational	277	360	112	319	105	47	46	4	1,270	1.3
Churches of Christ	143	457	105	276	132	19	..	14	1,146	1.2
Salvation Army	147	130	89	62	43	17	1	1	490	0.5
Jewry	124	188	2	3	15	..	..	..	332	0.3
Seventh-day Adventist	114	83	71	32	32	11	..	..	343	0.3
Christian Brethren	40	41	28	6	11	31	..	1	158	0.2
Jehovah's Witnesses	54	35	35	10	19	4	..	1	158	0.2
Church of Jesus Christ of Latter Day Saints	44	40	21	17	14	7	..	2	145	0.1
Assemblies of God	25	12	43	13	..	1	..	..	94	0.1
Other recognised denominations	120	128	94	49	114	24	4	2	535	0.6
Other ministers	98	274	16	9	16	..	..	..	413	0.4
Total, ministers	*31,011*	*24,928*	*12,266*	*8,075*	*5,995*	*2,571*	*262*	*582*	*85,690*	*89.2*
Civil officers	4,564	2,161	1,059	976	1,006	375	50	165	10,356	10.8
Grand total	35,575	27,089	13,325	9,051	7,001	2,946	312	747	96,046	100.0
Proportion of total (per cent)—										
Ministers of religion	87.17	92.02	92.05	89.22	85.63	87.27	83.97	77.91	89.2	..
Civil officers	12.83	7.98	7.95	10.78	14.37	12.73	16.03	22.09	10.8	..

(*a*) Corresponding particulars for 1965 are published in *Demography*, Bulletin No. 83, 1965 and in *Australian Demographic Review* No. 227, *Marriages 1965*.

Divorce

The number of dissolutions of marriage, nullities of marriage and judicial separations was 8,534 in 1965 and 9,921 in 1966. Further information may be found in the chapter Public Justice.

Fertility and reproduction

Natural increase has been a significant element of increase in the population of Australia for many years. The level of natural increase depends on the excess of births over deaths, and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

Number of live births and confinements

There are various methods of measuring the fertility of the population by relating the number of births to the numbers of the population. In each the basic data are, of course, the numbers of live births. The number of live births registered in Australia during 1965 is shown in the following table. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS: STATES AND TERRITORIES, 1965

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS									
Single births	76,324	62,248	32,817	20,432	15,845	7,403	904	2,136	218,109
Twins .	1,724	1,266	722	441	338	126	10	22	4,649
Triplets .	21	36	12	18	3	6	..	..	96
Males .	40,219	32,494	17,250	10,778	8,280	3,876	454	1,115	114,466
Females .	37,850	31,056	16,301	10,113	7,906	3,659	460	1,043	108,388
Total	78,069	63,550	33,551	20,891	16,186	7,535	914	2,158	222,854
STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE									
Twins .	46	12	14	5	14	2	..	..	93
CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE									
Nuptial .	71,574	59,681	30,029	19,365	14,594	7,003	807	2,085	205,138
Ex-nuptial .	5,642	3,218	3,160	1,296	1,428	466	102	62	15,374
Total	77,216	62,899	33,189	20,661	16,022	7,469	909	2,147	220,512

NOTE. Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy was live-born, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. *See also* page 226.

The average annual number of live births in each State and Territory for each five-year period from 1941 to 1965 and the total number of live births for each year from 1962 to 1966 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 583.

LIVE BIRTHS: STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941–45 .	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946–50 .	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951–55 .	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956–60 .	79,613	61,279	34,171	19,977	16,922	8,517	694	1,286	222,459
1961–65 .	82,896	65,193	35,357	21,377	16,861	8,439	897	1,932	232,952
Annual total—									
1962 .	85,439	65,890	35,690	21,361	17,064	8,894	924	1,819	237,081
1963 .	84,065	65,649	35,934	21,367	17,290	8,530	859	1,995	235,689
1964 .	80,518	64,990	34,972	20,866	16,685	8,252	911	1,955	229,149
1965 .	78,069	63,550	33,551	20,891	16,186	7,535	914	2,158	222,854
1966 .	77,758	64,008	32,843	20,319	17,007	7,401	972	2,318	222,626

A graph showing the number of births in each year from 1870 to 1966 will be found on page 213.

Crude birth rates

The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 221, 223–4. Crude birth rates for each five-year period from 1941 to 1965 and for each year from 1962 to 1966 for each State and Territory are set out below.

CRUDE BIRTH RATES(*a*): STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rates—									
1941–45 .	19.79	19.27	22.28	20.43	21.72	22.23	11.4	26.8	20.28
1946–50 .	22.60	22.51	24.69	24.41	25.24	26.71	23.8	37.9	23.39
1951–55 .	21.78	22.42	24.11	23.25	25.37	25.58	29.4	32.22	22.86
1956–60 .	21.55	22.52	23.80	22.27	24.20	25.45	31.49	30.10	22.59
1961–65(*b*)	20.52	21.45	22.53	21.16	21.76	23.44	29.70	26.57	21.38
Annual rates—									
1962(*b*) .	21.44	22.09	23.15	21.68	22.58	25.01	32.8	27.5	22.16
1963(*b*) .	20.77	21.59	22.92	21.21	22.24	23.66	28.5	27.2	21.62
1964(*b*) .	19.61	20.94	21.86	20.18	20.94	22.64	27.7	24.3	20.61
1965(*b*) .	18.72	20.09	20.56	19.65	19.87	20.49	26.0	24.4	19.66
1966 .	18.37	19.88	19.77	18.64	20.33	19.93	26.1	24.0	19.28

(*a*) Number of births per 1,000 of mean population. (*b*) Recalculated from population figures revised in accordance with preliminary results of the census of 30 June 1966.

NOTE. In some instances rates are based on too few births to warrant calculation to the second decimal place.

The birth rates in the table above are based on *live births registered in the respective States and Territories*. Some confinements, however, take place in States other than the State in which the mother usually resides, particularly in areas near State borders. The variations thus caused in the birth rates for the States and Territories *by referring the birth registrations to the mother's usual residence* are shown by the following corrected rates for 1965—New South Wales, 18.68; Victoria, 19.77; Queensland, 20.82; South Australia, 19.77; Western Australia, 20.09; Tasmania, 20.42; Northern Territory, 27.7; and Australian Capital Territory, 23.8. *See* Year Book No. 47 (p. 339) for the effect of the variations in the availability of hospital facilities on the birth rate in the Australian Capital Territory and in the neighbouring town of Queanbeyan in New South Wales.

A graph showing the birth rate for each year from 1870 to 1966 will be found over the page. The crude birth rates of Australia and the more populous countries of the world for the latest available year are shown in International Vital Statistics at the end of this chapter.

Fertility rates

The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical. In order to compare fertilities births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880–82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be fifteen to forty-four years inclusive, but births to mothers who were stated to be under fifteen or over forty-four years have been included in the compilations.

RATES OF BIRTHS, DEATHS AND NATURAL INCREASE

AUSTRALIA, 1870 TO 1966

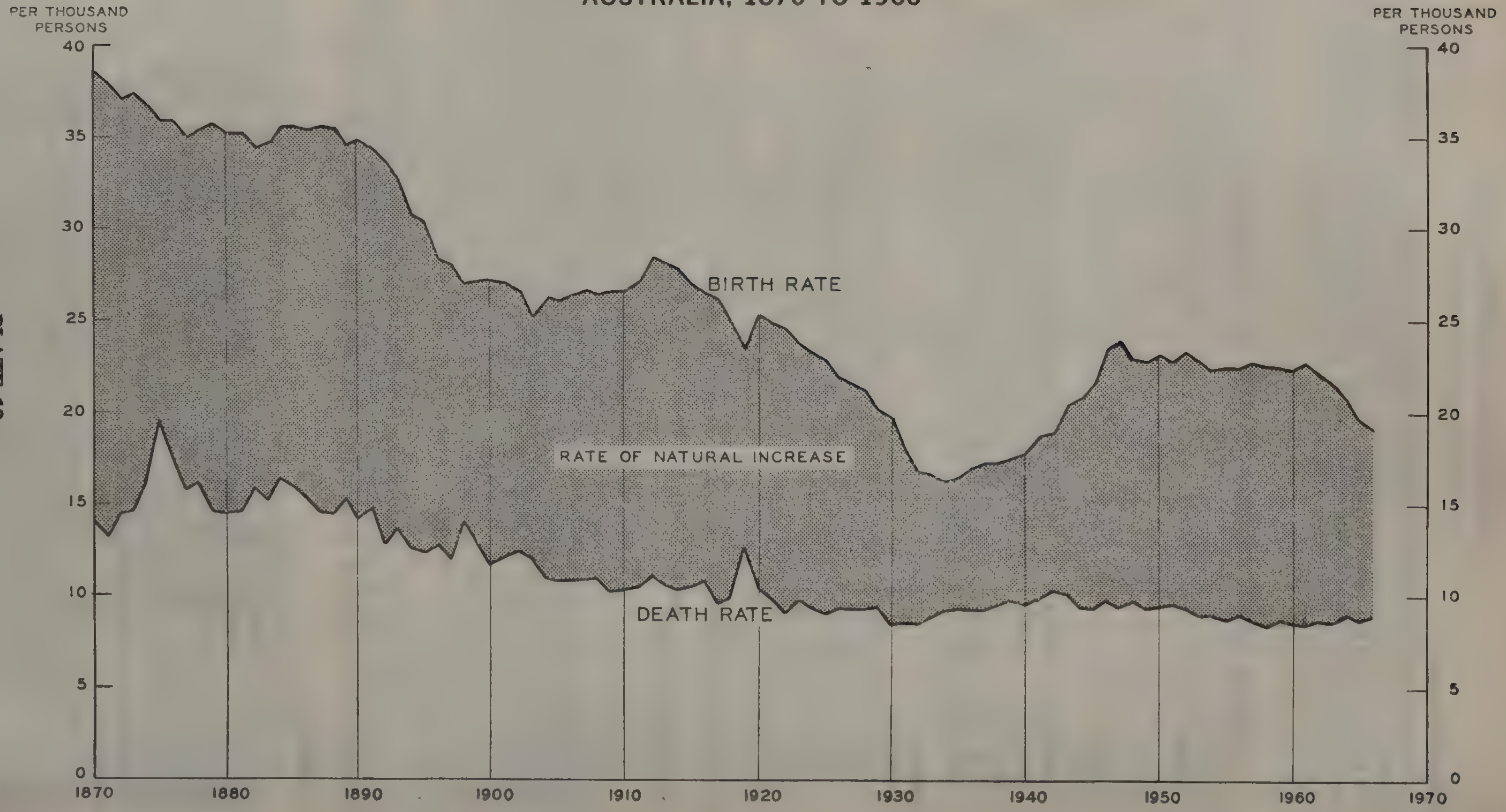


PLATE 19

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA, 1880-82 TO 1960-62

Period	Average annual rates			Index nos. (Base: 1880–82 = 100)		
		Fertility rates			Fertility rates	
	Crude birth rate(*a*)	Births per 1,000 women aged 15–44 years	Nuptial births per 1,000 married women aged 15–44 years	Crude birth rate(*a*)	Births per 1,000 women aged 15–44 years	Nuptial births per 1,000 married women aged 15–44 years
1880–82 .	35.3	170	321	100	100	100
1890–92 .	34.5	159	332	98	94	103
1900–02 .	27.2	117	235	77	69	73
1910–12 .	27.2	117	236	77	69	74
1920–22 .	25.0	107	197	71	63	61
1932–34 .	16.7	71	131	47	42	41
1946–48 .	23.6	104	160	67	61	50
1953–55 .	22.7	109	149	64	64	46
1960–62 .	22.5	112	154	64	66	48

(*a*) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent over the period 1932-34 to 1946-48, the crude birth rate rose by 41 per cent owing principally to the greatly increased number of marriages during that period.

Age-specific birth rates

So long as customary ages at marriage do not change drastically the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific birth rates, that is the number of births to women of specified ages per thousand women of those particular ages.

Age-specific birth rates are more commonly expressed in age groups than in single ages. In the following table such rates are shown in five-year age groups for Australia for the period 1941 to 1965. A graph showing the age-specific birth rates for each year during the period 1941 to 1965 appears on the following page.

AGE-SPECIFIC BIRTH RATES:(*a*) AUSTRALIA, 1941 TO 1965

Age group (years)	1941	1946	1951	1956	1961	1963	1964	1965
15–19 . .	24.30	26.30	38.33	43.09	47.37	46.04	46.74	47.35
20–24 . .	121.26	151.86	177.86	210.10	225.21	207.03	189.92	179.10
25–29 . .	145.07	184.59	185.23	203.15	220.16	210.86	197.88	187.90
30–34 . .	103.24	133.62	122.31	123.58	131.31	123.21	118.44	109.10
35–39 . .	58.11	76.66	65.92	64.22	63.22	59.81	58.39	53.16
40–44 . .	19.30	24.47	20.51	19.72	19.16	18.41	16.50	14.85
45–49 . .	1.67	2.06	1.61	1.57	1.42	1.11	1.16	1.12

(*a*) Number of births per 1,000 women in each age group. Rates for dates subsequent to 1961 are based on the age distribution at the census of 30 June 1961 (adjusted only for 'not stated' ages) and on subsequent births, recorded ages at death and recorded ages of migrants.

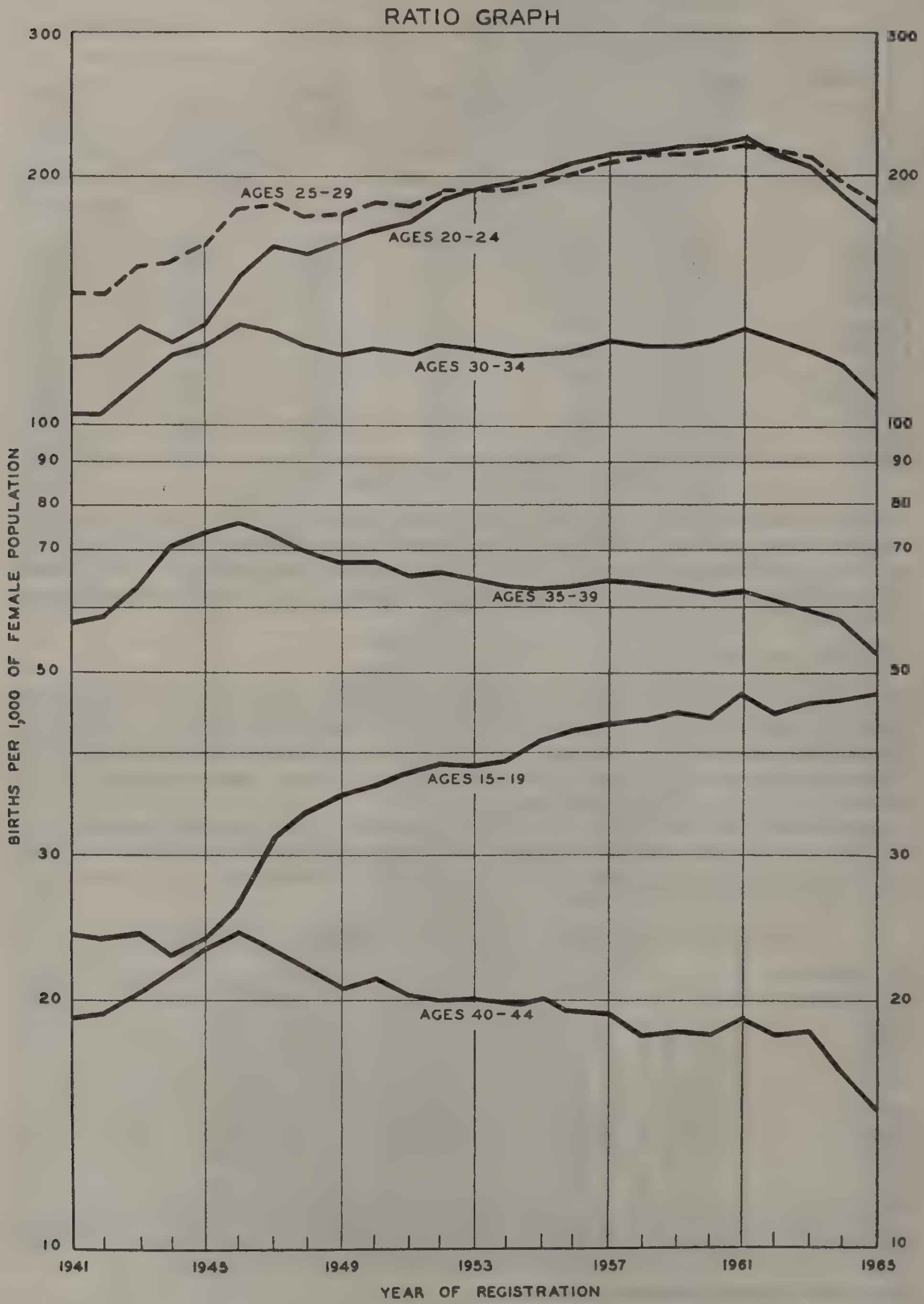
Gross and net reproduction rates for females

A single measure of reproduction, known as the gross reproduction rate, is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on an average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly

BIRTH RATES, BY AGE OF MOTHER

AUSTRALIA, 1941 TO 1965

(NUMBER OF BIRTHS PER 1,000 OF FEMALE POPULATION IN EACH AGE GROUP)



NOTE. THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE.

PLATE 20

than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality, and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility, page 224.

GROSS AND NET REPRODUCTION RATES: AUSTRALIA, 1881 TO 1965

Year	Gross reproduction rate	Net reproduction rate	Year	Gross reproduction rate	Net reproduction rate
1881(*a*) . .	2.65	(*b*) 1.88	1951 . .	1.485	(*g*) 1.409
1891(*a*) . .	2.30	(*b*) 1.73	1954 . .	1.558	(*h*) 1.497
1901(*a*) . .	1.74	(*c*) 1.39	1960 . .	1.677	(*i*) 1.623
1911 . .	1.705	(*d*) 1.421	1961 . .	1.724	(*i*) 1.668
1921 . .	1.511	(*e*) 1.313	1962 . .	1.659	(*i*) 1.605
1931 . .	1.141	(*f*) 1.039	1963 . .	1.620	(*i*) 1.567
1941 . .	1.154	(*f*) 1.053	1964 . .	1.525	(*i*) 1.475
1947 . .	1.493	(*g*) 1.416	1965 . .	1.442	(*i*) 1.395

(*a*) Approximate only. (*b*) 1881–1890 mortality experience used. (*c*) 1891–1900 mortality experience used. (*d*) 1901–1910 mortality experience used. (*e*) 1920–1922 mortality experience used. (*f*) 1932–1934 mortality experience used. (*g*) 1946–1948 mortality experience used. (*h*) 1953–1955 mortality experience used. (*i*) 1960–1962 mortality experience used.

It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking into account previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

In the following table a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1965. These represent the latest available international comparisons. The registration of vital events has not been fully established in many countries and consequently details for the calculation of reproduction rates are not available. In order that the table should be as representative as possible some countries have been included even though the gross reproduction rate is the only figure available.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

Country	Period	Reproduction rate		Country	Period	Reproduction rate	
		Gross	Net			Gross	Net
Venezuela . .	1963	3.04	..	Australia(*a*) . .	1965	1.44	1.40
Mauritius . .	1964	2.94	2.54	Norway . .	1963	1.42	1.38
Malaya . . .	1960	2.9	..	France . . .	1964	1.42	1.37
Ceylon . . .	1961	2.5	..	England and Wales	1963	1.39	1.34
Thailand . .	1954	2.26	1.70	Belgium . .	1963	1.30	1.25
Chile . . .	1964	2.16	1.83	Yugoslavia . .	1963	1.29	1.06
Ireland, Republic of	1963	1.90	1.74	Czechoslovakia .	1963	1.22	1.18
New Zealand . .	1964	1.83	1.77	Germany—			
Canada . . .	1964	1.72	1.66	Federal Rep. .	1963	1.22	1.17
United States of				Democratic Rep.	1960	1.16	1.06
America . .	1963	1.62	1.56	Sweden . .	1964	1.21	1.18
Netherlands . .	1964	1.55	1.50	Switzerland . .	1962	1.20	1.16
Portugal . .	1960	1.52	1.33	Japan . . .	1963	0.96	0.92
Scotland . .	1964	1.49	1.44	Hungary . .	1964	0.87	0.81

(*a*) Excludes full-blood Aborigines.

In comparing the reproduction rates of the countries shown allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

Fertility of marriages

More satisfactory estimates of the fertility of marriages may be made by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES: AUSTRALIA, 1951 TO 1965

Year	Nuptial confinements per marriage	Year	Nuptial confinements per marriage	Year	Nuptial confinements per marriage
1951 .	2.55	1956 .	2.76	1961 .	3.05
1952 .	2.63	1957 .	2.87	1962 .	2.98
1953 .	2.66	1958 .	2.88	1963 .	2.92
1954 .	2.66	1959 .	2.93	1964 .	2.78
1955 .	2.71	1960 .	2.96	1965 .	2.62

See text following first table on page 223.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and consequently are not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement in recent years has been about 8 per cent.

Masculinity of live births

The masculinity of live births, i.e. the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The averages for the ten years 1951–60 were as follows: New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1964 to 1966.

MASCULINITY(*a*) OF LIVE BIRTHS REGISTERED: AUSTRALIA, 1901 TO 1966

	1901–10	1911–20	1921–30	1931–40	1941–50	1951–60	1964	1965	1966
Total births . .	105.22	105.27	105.55	105.12	105.38	105.43	106.28	105.61	105.95
Ex-nuptial births .	104.08	105.25	105.16	105.36	105.34	103.99	106.00	107.47	103.91

(*a*) Number of males born for every 100 female births.

Ex-nuptial live births

The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1965 and for Australia at intervals from 1901 to 1965 are shown in the following table.

EX-NUPTIAL LIVE BIRTHS
NUMBER AND PROPORTION, STATES AND TERRITORIES, 1965

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number . .	5,700	3,245	3,202	1,310	1,439	471	102	62	15,531
Proportion of total births %	7.30	5.11	9.54	6.27	8.89	6.25	11.16	2.87	6.97

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION
AUSTRALIA, 1901 TO 1965

	Annual average						1961	1962	1963	1964	1965
	1901–10	1911–20	1921–30	1931–40	1941–50	1951–60					
Number .	6,498	6,836	6,238	5,133	6,780	9,013	12,269	12,813	13,454	14,925	15,531
Proportion of total births % .	6.05	5.22	4.66	4.40	4.13	4.25	5.11	5.40	5.71	6.51	6.97

A further measure of ex-nuptiality is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows: 1880–82, 14.49; 1890–92, 15.93; 1900–02, 13.30; 1910–12, 12.53; 1920–22, 10.50; 1932–34, 6.91; 1946–48, 11.45; 1953–55, 14.45; and 1960–62, 18.49. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown. The following table shows the relative ratios of ex-nuptial and nuptial births to the total population for periods from 1901.

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES(*a*)
AUSTRALIA, 1901 TO 1965

Birth rate	Annual average						1963	1964	1965
	1901–10	1911–20	1921–30	1931–40	1941–50	1951–60			
Ex-nuptial. .	1.60	1.39	1.04	0.76	0.90	0.97	1.23	1.34	1.37
Nuptial . .	24.91	25.18	21.40	16.47	20.99	21.75	20.38	19.27	18.29
Total .	**26.51**	**26.57**	**22.44**	**17.23**	**21.89**	**22.72**	**21.62**	**20.61**	**19.66**

(*a*) Number of births per 1,000 of mean population.

Legitimations

Under the provisions of the Commonwealth *Marriage Act* 1961–1966, which came into operation on 1 September 1963, a child whose parents were not married to each other at the time of its birth becomes legitimised on the subsequent marriage of its parents. The legitimation takes place whether or not there was a legal impediment to the marriage of the parents at the time of the child's birth and whether or not the child was still living at the time of the marriage, or in the case of a child born before 1 September 1963, at that date. Prior to the introduction of this Act, legitimations took place under Acts passed in the several States to legitimise children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who came within the scope of their purposes, born before or after the passing thereof, was deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. The number of children legitimised in Australia during 1965 was 2,923.

Multiple births

Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

Multiple births recorded on this basis during 1965 comprised 2,371 cases of twins and 32 cases of triplets, the resultant numbers of live-born and still-born children being respectively 4,649 and 93 for twins, 96 and 0 for triplets. This represents an average of 10.75 recorded cases of twins and 0.15 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 93 mothers and mothers of triplets 1 in every 6,891. Total cases of multiple births represented 10.90 per 1,000 confinements or 1 in every 92 mothers. The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

Confinements—ages of parents

The relative ages of the parents of children whose births were registered in 1965 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 83. In the following table the relative ages of parents are shown in five-year groups.

CONFINEMENTS, BY RELATIVE AGES OF PARENTS: AUSTRALIA, 1965

Age of father (years) and type of birth		Total	Age of mother (years)								
			Under 15	15–19	20–24	25–29	30–34	35–39	40–44	45 and over	Not stated
Under 20		3,557	1	3,027	513	13	2	1	..	..	..
20–24		38,049	..	11,257	24,504	2,163	102	20	2	1	..
25–29		65,576	..	2,518	31,518	28,798	2,473	247	22	..	..
30–34		48,625	..	425	7,609	23,586	15,069	1,793	140	3	..
35–39		30,704	..	98	1,678	6,930	12,691	8,490	793	24	..
40–44		12,921	..	17	290	1,291	3,388	5,518	2,362	53	2
45–49		3,976	..	5	79	243	674	1,490	1,347	138	..
50–54		1,273	..	1	30	76	200	441	436	89	..
55–59		324	..	..	9	23	50	102	117	23	..
60–64		87	..	1	2	9	19	33	18	5	..
65 and over(*a*)		46	..	..	2	2	9	15	17	1	..
Mothers of nuptial children	Single	202,894	1	17,241	65,654	62,412	34,209	17,855	5,186	334	2
	Twins	2,214	..	108	575	713	460	288	67	3	..
	Triplets	30	..	..	5	9	8	7	1	..	..
	Total	*205,138*	*1*	*17,349*	*66,234*	*63,134*	*34,677*	*18,150*	*5,254*	*337*	*2*
Mothers of ex-nuptial children	Single	15,215	104	5,811	4,428	2,115	1,404	993	330	21	9
	Twins	157	..	32	52	32	22	15	3	..	1
	Triplets	2	..	..	2	..	..	..	..	..	..
	Total	*15,374*	*104*	*5,843*	*4,482*	*2,147*	*1,426*	*1,008*	*333*	*21*	*10*
Total mothers	Single	218,109	105	23,052	70,082	64,527	35,613	18,848	5,516	355	11
	Twins	2,371	..	140	627	745	482	303	70	3	1
	Triplets	32	..	..	7	9	8	7	1	..	..
	Total	220,512	105	23,192	70,716	65,281	36,103	19,158	5,587	358	12

(*a*) Includes two fathers, age 'Not stated'.

Confinements—countries of birth of parents

The following table shows the countries of birth of parents of children whose births from nuptial confinements were registered during 1965.

NUPTIAL CONFINEMENTS, BY RELATIVE COUNTRIES OF BIRTH OF PARENTS AUSTRALIA, 1965

Country of birth of father	Country of birth of mother											Total fathers
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia	Other European	Other and unspecified	
Australia .	141,864	531	5,379	657	124	282	211	791	88	476	1,027	151,430
New Zealand .	534	201	70	3	..	3	..	3	1	4	14	833
United Kingdom and Ireland .	6,722	83	6,870	115	9	21	57	92	7	132	273	14,381
Germany .	929	15	157	1,071	11	19	16	69	26	147	45	2,505
Greece . .	354	2	25	22	6,026	11	3	7	16	19	87	6,572
Italy . .	1,825	10	129	69	31	9,065	40	61	82	87	87	11,486
Malta . .	440	1	79	17	2	10	1,684	23	5	8	24	2,293
Netherlands .	1,417	11	154	59	7	3	13	1,861	2	37	96	3,660
Yugoslavia .	466	8	62	120	87	111	18	51	1,463	114	26	2.526
Other European	1,657	24	264	342	67	60	24	85	102	2,229	154	5,008
Other and unspecified .	1,619	29	307	53	184	54	31	96	11	75	1,985	4,444
Total mothers .	157,827	915	13,496	2,528	6,548	9,639	2,097	3.139	1,803	3,328	3,818	205,138

Confinements—occupations of fathers

In the 205,138 cases where nuptial confinements resulted in one or more live births, the classes of occupations of the fathers were distributed as follows: craftsmen, 66,509; rural and mining workers, 24,959; administrative and clerical workers, 27,552; labourers, 22,227; workers in transport and communication, 18,130; professional and technical workers, 19,738; sales workers, 12,844; service, sport and other workers, 12,527; persons not in the work force, 652.

Confinements—age, duration of marriage and issue of mothers

The total number of nuptial confinements resulting in live births in 1965 was 205,138, comprising 202,894 single births, 2,214 cases of twins and 30 cases of triplets. The following tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

The following table shows that in 1965 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1965 was 2.48, compared with 2.56 in 1964, 2.60 in 1963, 2.61 in 1962 and 2.60 in 1961.

NUPTIAL CONFINEMENTS, BY DURATION OF MARRIAGE AND ISSUE OF MOTHERS: AUSTRALIA, 1965

Duration of marriage	Total married mothers	Total issue	Average issue	Duration of marriage	Total married mothers	Total issue	Average issue
Under 1 year	31,144	31,826	1.02	15 years .	2,527	12,819	5.07
1 year .	23,760	30,435	1.28	16 ,, .	1,985	10,276	5.18
2 years .	24,233	40,932	1.69	17 ,, .	1,710	9,392	5.49
3 ,, .	21,481	43,357	2.02	18 ,, .	1,350	7,626	5.65
4 ,, .	18,050	42,471	2.35	19 ,, .	889	5,250	5.91
5 ,, .	15,142	40,265	2.66	20 ,, .	614	3,734	6.08
6 ,, .	12,461	36,860	2.96	21 ,, .	409	2,630	6.43
7 ,, .	10,344	33,236	3.21	22 ,, .	332	2,267	6.83
8 ,, .	8,715	30,131	3.46	23 ,, .	235	1,577	6.71
9 ,, .	7,483	27,774	3.71	24 ,, .	119	941	7.91
10 ,, .	6,113	23,867	3.90	25 years and over .	147	1,103	7.50
11 ,, .	5,012	20,989	4.19				
12 ,, .	4,174	18,487	4.43				
13 ,, .	3,610	16,489	4.57				
14 ,, .	3,099	14,982	4.83	**Total** .	**205,138**	**509,716**	**2.48**

The following table shows the average number of children born to mothers of different ages.

NUPTIAL CONFINEMENTS: AVERAGE ISSUE OF MOTHERS BY AGE, AUSTRALIA, 1911 TO 1965

Period	Average issue of mothers aged—							
	Under 20 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years	45 years and over	All ages
1911–20 . .	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921–30 . .	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931–40 . .	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941–50 . .	1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1951–60 . .	1.23	1.71	2.42	3.12	3.84	4.63	5.57	2.51
1965 . .	1.21	1.71	2.48	3.36	4.13	4.80	5.54	2.48

A classification of mothers by age and previous issue is given for 1965 in the following table.

NUPTIAL CONFINEMENTS, BY AGE OF MOTHER AND PREVIOUS ISSUE AUSTRALIA, 1965

Previous issue	Age of mother (years)							Total married mothers
	Under 20	20–24	25–29	30–34	35–39	40–44	45 and over	
0	14,068	33,641	15,615	4,519	1,822	502	(a) 30	70,197
1	2,966	22,093	20,498	7,293	2,549	553	23	55,975
2	294	7,789	15,483	8,876	3,578	778	(a) 38	36,836
3	22	2,079	7,187	6,667	3,482	862	52	20,351
4	. .	498	2,803	3,610	2,604	769	45	10,329
5	. .	108	1,015	1,878	1,717	609	30	5,357
6	. .	21	359	949	1,020	388	33	2,770
7	. .	5	127	481	587	315	30	1,545
8	. .	. .	36	240	358	172	21	827
9	. .	. .	9	87	221	123	15	455
10 and over .	. .	. .	2	77	212	183	22	496
Total married mothers .	17,350	66,234	63,134	34,677	18,150	5,254	(b) 339	205,138

(a) Includes 1, age not stated. (b) Includes 2, age not stated.

Multiple births—previous issue of mothers

Of married mothers of twins in 1965, 628 had no previous issue either living or deceased, 559 had one child previously, 428 had two previous issue, 264 three, 142 four, 89 five, 46 six, 16 seven, 19 eight, 9 nine, 4 ten, 5 eleven, 4 twelve, and 1 fourteen. Of the 30 cases of nuptial triplets registered during 1965, 6 mothers had no previous issue, 10 had one, 4 had two, 6 had three, 1 had four, 1 had five, and 2 had seven previous issue.

Nuptial first births

The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.

NUPTIAL FIRST BIRTHS, BY DURATION OF MARRIAGE AUSTRALIA, 1911 TO 1965

Duration of marriage	Annual average					1964	1965
	1911–20	1921–30	1931–40	1941–50	1951–60		
NUMBER OF NUPTIAL FIRST BIRTHS							
Under 8 months . .	9,312	10,351	10,677	8,822	11,796	18,343	19,358
8 months . . .	1,562	1,530	1,417	2,104	2,144	2,007	1,875
9 ,, . . .	3,517	3,253	2,668	4,298	4,673	3,983	3,856
10 ,, . . .	2,877	2,907	2,202	3,447	3,947	3,301	3,060
11 ,, . . .	2,018	2,152	1,836	2,896	3,287	2,803	2,634
Total under 1 year .	*19,286*	*20,193*	*18,800*	*21,567*	*25,847*	*30,437*	*30,783*
1 year and under 2 years	8,563	10,133	10,595	17,762	18,463	17,547	17,567
2 years ,, ,, 3 ,,	2,626	3,369	4,319	8,028	7,937	8,201	9,161
3 ,, ,, ,, 4 ,,	1,230	1,743	2,214	4,361	4,373	4,429	4,809
4 ,, ,, ,, 5 ,,	700	941	1,205	2,569	2,632	2,623	2,739
5 ,, ,, ,, 10 ,,	980	1,446	1,766	3,936	4,262	4,342	4,177
10 ,, ,, ,, 15 ,,	168	240	289	501	721	794	766
15 years and over . .	42	55	55	94	144	213	195
Total . . .	**33,595**	**38,120**	**39,243**	**58,818**	**64,379**	**68,586**	**70,197**
PROPORTION OF TOTAL NUPTIAL FIRST BIRTHS (Per cent)							
Under 8 months . .	27.72	27.15	27.21	15.00	18.32	26.74	27.58
8 months . . .	4.65	4.01	3.61	3.58	3.33	2.93	2.67
9 ,, . . .	10.47	8.53	6.80	7.31	7.26	5.81	5.49
10 ,, . . .	8.56	7.63	5.61	5.86	6.13	4.81	4.36
11 ,, . . .	6.01	5.65	4.68	4.92	5.11	4.09	3.75
Total under 1 year .	*57.41*	*52.97*	*47.91*	*36.67*	*40.15*	*44.38*	*43.85*
1 year and under 2 years	25.49	26.58	27.00	30.20	28.68	25.58	25.03
2 years ,, ,, 3 ,,	7.82	8.84	11.01	13.65	12.33	11.96	13.05
3 ,, ,, ,, 4 ,,	3.66	4.57	5.64	7.41	6.79	6.46	6.85
4 ,, ,, ,, 5 ,,	2.08	2.47	3.07	4.37	4.09	3.82	3.90
5 ,, ,, ,, 10 ,,	2.92	3.79	4.50	6.69	6.62	6.33	5.95
10 ,, ,, ,, 15 ,,	0.50	0.63	0.73	0.85	1.12	1.16	1.09
15 years and over . .	0.12	0.15	0.14	0.16	0.22	0.31	0.28
Total . . .	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

In 1965 the masculinity of nuptial first births was 105.58 and of total births 105.61.

A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table.

NUPTIAL FIRST BIRTHS, BY AGE OF MOTHER AND DURATION OF MARRIAGE AUSTRALIA, 1965

Duration of marriage	Age of mother (years)								Total
	Under 20	20–24	25–29	30–34	35–39	40–44	45 and over	Not stated	
	NUMBER OF NUPTIAL FIRST BIRTHS								
Under 8 months . .	10,432	7,334	1,075	304	167	44	2	..	19,358
8 months . . .	379	1,030	344	77	43	2	..	..	1,875
9 „ . . .	556	2,279	723	206	80	12	..	..	3,856
10 „ . . .	408	1,855	551	167	62	16	1	..	3,060
11 „ . . .	351	1,554	501	155	56	17	..	..	2,634
Total under 1 year .	*12,126*	*14,052*	*3,194*	*909*	*408*	*91*	*3*	..	*30,783*
1 year and under 2 years.	1,646	10,754	3,715	954	390	105	3	..	17,567
2 years „ „ 3 „ .	256	5,409	2,735	516	181	61	3	..	9,161
3 „ „ „ 4 „ .	35	2,271	1,991	361	113	35	2	1	4,809
4 „ „ „ 5 „ .	4	800	1,503	286	109	35	2	..	2,739
5 „ „ „ 10 „ .	1	354	2,396	1,043	296	77	10	..	4,177
10 „ „ „ 15 „ .	..	1	81	423	217	42	2	..	766
15 years and over . .	..	..	..	27	108	56	4	..	195
Total . . .	**14,068**	**33,641**	**15,615**	**4,519**	**1,822**	**502**	**29**	**1**	**70.197**

The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS AUSTRALIA, 1911 TO 1965

Period	Nuptial confinements			Proportion of first to total nuptial confinements (per cent)
	First births	Other births	Total	
Annual average—				
1911–20 . .	33,595	88,997	122,592	27.40
1921–30 . .	38,120	88,086	126,206	30.20
1931–40 . .	39,243	71,136	110,379	35.55
1941–50 . .	58,818	96,994	155,812	37.75
1951–60 . .	64,379	136,264	200,643	32.09
Annual total—				
1961 . . .	70,177	155,105	225,282	31.15
1962 . . .	68,310	153,547	221,857	30.79
1963 . . .	69,130	150,713	219,843	31.45
1964 . . .	68,586	143,437	212,023	32.35
1965 . . .	70,197	134,941	205,138	34.22

Still-births

Interstate comparisons of the figures and rates in the following tables are affected by the differences in the definitions of still-births adopted by the various States, and only the trends in the rates for the States should be compared. For various reasons, the registration of still-births is not as complete as for live births and deaths: particulars for the Territories and the smaller States are more affected by this than are those for the larger States. Still-birth registration is not compulsory in Tasmania. The figures shown represent those still-births voluntarily registered during the year.

STILL-BIRTHS: STATES AND TERRITORIES, 1936 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1936–40 . .	1,409	854	(*a*)	(*b*) 274	234	144	(*a*)	5	(*a*)
1941–45 . .	1,478	966	(*c*) 657	324	248	143	(*a*)	9	*de* 3,825
1946–50 . .	1,405	949	626	368	274	161	(*a*)	12	(*e*) 3,795
1951–55 . .	1,239	849	581	290	271	139	8	16	3,393
1956–60 . .	1,253	839	558	274	235	109	6	19	3,293
1961–65 . .	1,104	794	468	264	194	87	17	18	2,946
Annual total—									
1961 . .	1,306	885	553	272	240	111	17	19	3,403
1962 . .	1,099	775	520	278	203	102	9	20	3,006
1963 . .	1,163	792	476	262	178	63	30	14	2,978
1964 . .	1,003	771	402	252	170	69	13	15	2,695
1965 . .	947	747	391	256	181	89	15	23	2,649

(*a*) Not available. (*b*) Three years 1938–40. (*c*) Four years 1942–45. (*d*) Excludes Queensland for 1941. (*e*) Excludes Northern Territory.

The incidence of still-births in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows.

PROPORTION OF STILL-BIRTHS(*a*): STATES AND TERRITORIES, 1936 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1936–40 .	28.7	27.4	(*b*)	(*c*) 27.5	25.7	28.7	(*b*)	22.2	(*b*)
1941–45 .	25.5	24.8	*d* 26.8	25.2	23.3	25.7	(*b*)	22.9	*ef* 25.25
1946–50 .	20.0	19.6	21.9	22.1	20.5	22.3	(*b*)	16.3	*f* 20.46
1951–55 .	16.5	15.5	18.4	15.8	17.0	17.5	17.2	17.1	16.57
1956–60 .	15.5	13.5	16.1	13.5	13.7	12.6	8.6	14.3	14.59
1961–65 .	13.1	12.0	13.1	12.2	11.4	10.2	18.4	9.3	12.49
Annual rate—									
1961 . .	14.9	13.3	14.9	12.0	13.9	12.2	(*g*)	(*g*)	13.98
1962 . .	12.7	11.6	14.4	12.8	11.8	11.3	(*g*)	10.9	12.52
1963 . .	13.6	11.9	13.1	12.1	10.2	7.3	33.7	(*g*)	12.48
1964 . .	12.3	11.7	11.4	11.9	10.1	8.3	(*g*)	(*g*)	11.62
1965 . .	12.0	11.6	11.5	12.1	11.1	11.7	(*g*)	10.5	11.75

(*a*) Numbers of still-births per 1,000 of all births (live and still). (*b*) Not available. (*c*) Three years 1938–40. (*d*) Four years 1942–45. (*e*) Excludes Queensland for 1941. (*f*) Excludes Northern Territory. (*g*) Less than twenty events: rates not calculated.

NOTE. Because of the smallness of the numbers of still-births occurring in the Australian Capital Territory and the Northern Territory the rates for these Territories (i.e. the number per thousand live births and still-births) are subject to considerable fluctuation.

Mortality

Number of deaths

The following tables show the number of deaths, male and female, registered in each State and Territory during 1966. Still-births, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

DEATHS, SEXES: STATES AND TERRITORIES, 1966

Sex	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males . .	22,454	15,569	8,531	5,215	3,922	1,726	114	265	57,796
Females . .	18,092	13,104	6,330	4,108	2,850	1,433	40	176	46,133
Persons .	**40,546**	**28,673**	**14,861**	**9,323**	**6,772**	**3,159**	**154**	**441**	**103,929**

A summary of the number of deaths in each State and Territory from 1941 to 1966 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 597.

DEATHS: STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941–45(*a*) .	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946–50(*a*) .	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951–55 .	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
1956–60 .	34,002	24,254	12,008	7,732	5,523	2,668	117	184	86,488
1961–65 .	37,514	26,569	13,570	8,388	6,043	2,939	152	290	95,465
Annual total—									
1962 . .	36,861	25,847	13,182	8,232	5,810	2,870	144	217	93,163
1963 . .	37,226	26,920	13,275	8,201	5,976	2,818	161	317	94,894
1964 . .	39,487	27,548	14,523	8,906	6,429	3,174	164	363	100,594
1965 . .	38,949	28,031	14,114	8,788	6,274	3,043	161	355	99,715
1966 . .	40,546	28,673	14,861	9,323	6,772	3,159	154	441	103,929

(*a*) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

A graph showing the number of deaths in each year from 1870 to 1966 will be found on page 213.

Crude death rates

The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period.

CRUDE DEATH RATES(*a*): STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1941–45(*b*) .	9.73	10.63	9.24	10.26	9.86	10.21	6.4	5.0	9.96
1946–50(*b*) .	9.70	10.37	9.13	9.76	9.23	9.30	6.3	5.3	9.74
1951–55 . .	9.49	9.55	8.71	9.25	8.49	8.48	6.9	4.58	9.25
1956–60 . .	9.20	8.91	8.36	8.62	7.90	7.97	5.32	4.31	8.78
1961–65(*c*) .	9.27	8.72	8.63	8.29	7.78	8.15	4.98	3.89	8.75
Annual rate—									
1962(*c*) . .	9.25	8.66	8.55	8.35	7.69	8.07	5.1	3.3	8.71
1963(*c*) . .	9.20	8.85	8.47	8.14	7.69	7.82	5.3	4.3	8.70
1964(*c*) . .	9.62	8.87	9.08	8.61	8.07	8.71	5.0	4.5	9.05
1965(*c*) . .	9.34	8.86	8.65	8.27	7.70	8.27	4.6	4.0	8.80
1966—									
Males . .	10.57	9.65	10.13	9.52	9.20	9.21	5.3	5.3	9.94
Females .	8.57	8.16	7.73	7.57	6.95	7.79	2.5	3.8	8.03
Persons . .	9.58	8.91	8.94	8.55	8.10	8.51	4.1	4.6	9.00

(*a*) Number of deaths per 1,000 of mean population. (*b*) Excludes deaths of defence personnel, etc., from September 1939 to June 1947. (*c*) Recalculated from population figures revised in accordance with preliminary results of the census of 30 June 1966.

NOTE. Crude death rates (i.e. the number of deaths per thousand of mean population) are affected by the particular age and sex composition of the population. In the Australian Capital Territory and the Northern Territory the population at risk in the higher ages is lower proportionately than in other States, largely as a result of the rapid increases of the population in the lower ages. In some instances rates are based on too few deaths to warrant calculation to the second decimal place.

A graph showing the crude death rate for each year from 1870 to 1966 will be found on page 220.

Standardised death rates

The death rates quoted on page 232 are crude rates, i.e. they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, 'standardised' death rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death rate if the death rates for each sex and in each age group had been as recorded, but the age and sex distribution had been the same as in the standard population. For the standardised rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their censuses nearest to the year 1900. An examination of the age distribution of deaths and the resultant age-specific death rates is made on pages 237–8.

Comparison of crude and standardised death rates

The relative incidence of mortality as between individual States and as between the years 1921, 1933, 1947, 1954, and 1961 is illustrated in the following statement of crude and 'standardised' death rates. These years have been chosen for comparison because the census data give essential information as to sexes and ages of the State populations. Crude death rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDISED DEATH RATES: STATES, 1921 TO 1961

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Crude death rate(*a*)—							
1921 . . .	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933 . . .	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947 . . .	9.53	10.44	9.15	9.61	9.39	9.17	9.69
1954 . . .	9.46	9.20	8.63	9.01	8.38	8.67	9.10
1961 . . .	8.95	8.37	8.41	8.06	7.77	7.89	8.47
Standardised death rate(*b*)—							
1921 . . .	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933 . . .	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947 . . .	7.44	7.31	7.47	6.77	7.28	7.21	7.34
1954 . . .	7.24	6.63	6.80	6.52	6.71	7.02	6.90
1961 . . .	6.56	6.12	6.26	5.90	6.02	6.19	6.27

(*a*) Total deaths per 1,000 of mean population. (*b*) *See* explanation of standardised death rates above.

The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.

True death rates

The main objections to standardised death rates are that the choice of a standard population is arbitrary and that the standardised rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is fifty years, say, then each person will on the average die fifty years after birth, so that in a stationary population one person in fifty, or twenty per thousand, will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

COMPLETE EXPECTATION OF LIVE AT BIRTH AND TRUE DEATH RATES: AUSTRALIA, 1881-90 TO 1965

Period	Complete expectation of life at birth (years)		True death rate	
	Males	Females	Males(*a*)	Females(*b*)
1881–90	47.20	50.84	21.19	19.67
1891–1900	51.06	54.76	19.58	18.26
1901–10	55.20	58.84	18.12	17.00
1920–22	59.15	63.31	16.91	15.80
1932–34	63.48	67.14	15.75	14.89
1946–48	66.07	70.63	15.14	14.16
1953–55	67.14	72.75	14.89	13.75
1960–62	67.92	74.18	14.72	13.48
1963(*c*)	67.8	74.1	14.73	13.50
1964(*c*)	67.4	73.7	14.84	13.55
1965(*c*)	67.7	74.1	14.77	13.50

(*a*) Number of deaths per 1,000 males in stationary population. (*b*) Number of deaths per 1,000 females in stationary population. (*c*) Based on abridged life tables calculated by the Commonwealth Statistician. These tables are based on estimates of population by age brought forward from the 1961 census adjusted to take into account the 1966 census field count and are subject to revision when the 1966 census population by age results become available.

The crude death rates and the true death rates of Australia and the more populous countries of the world for the latest available year are shown in the table in International Vital Statistics at the end of this chapter.

Australian Life Tables

Life Tables prior to 1961. It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881–90, 1891–1900 and 1901–10. These compilations furnished a comprehensive view of Australian mortality in respect of sex, time, and geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the ten years 1901–10 were prepared and published. At the census of 1921 Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933, 1947 and 1954, Life Tables based on the census population and the deaths in the years 1932 to 1934, 1946 to 1948 and 1953 to 1955 respectively were compiled by the Commonwealth Actuary.

Life Tables of census of 1961. On the occasion of the 1961 Census the eighth Life Tables in the series were compiled by the Commonwealth Actuary. These were based on the population recorded at the census, adjusted to allow for variation in the net movement into Australia over the years 1960 to 1962, and deaths during these years. Full particulars of the data used, the method of construction and the tabulation of these Life Tables will be found in the report of the Commonwealth Actuary, which was published by the Commonwealth Statistician in 1966. This report will also appear in Volume VIII of the detailed tables of the 1961 census. The main features of the tables, including comparisons with earlier Australian tables, are set out in the following summary tables.

AUSTRALIAN COMPARATIVE LIFE TABLES

RATES OF MORTALITY (q_x) AT REPRESENTATIVE AGES

Age (x)	1901–10	1920–22	1932–34	1946–48	1953–55	1960–62
			MALES			
0 . . .	.09510	.07132	.04543	.03199	.02521	.02239
10 . . .	.00179	.00156	.00119	.00072	.00056	.00041
20 . . .	.00370	.00284	.00219	.00169	.00186	.00173
30 . . .	.00519	.00390	.00271	.00186	.00170	.00157
40 . . .	.00816	.00617	.00460	.00337	.00297	.00300
50 . . .	.01395	.01158	.00966	.00919	.00819	.00804
60 . . .	.02584	.02407	.02216	.00278	.02221	.02176
70 . . .	.06162	.05290	.05082	.05256	.05315	.05177
80 . . .	.13795	.13340	.12659	.12011	.11958	.11617
			FEMALES			
0 . . .	.07953	.05568	.03642	.02519	.01989	.01757
10 . . .	.00159	.00127	.00087	.00050	.00035	.00028
20 . . .	.00329	.00252	.00183	.00091	.00064	.00060
30 . . .	.00519	.00387	.00279	.00165	.00096	.00082
40 . . .	.00718	.00524	.00402	.00284	.00217	.00187
50 . . .	.00956	.00808	.00744	.00641	.00530	.00464
60 . . .	.01920	.01571	.01466	.01360	.01203	.01074
70 . . .	.04777	.04090	.03802	.03607	.03250	.02933
80 . . .	.11333	.11230	.10106	.10027	.09314	.08507

q_x = probability of dying within one year at specified ages.

RATES OF MORTALITY FOR ONE PERIOD AS A PROPORTION OF THE RATES FOR THE PRECEDING PERIOD

Age	Males				Females			
	$\frac{1932\text{–}34}{1920\text{–}22}$	$\frac{1946\text{–}48}{1932\text{–}34}$	$\frac{1953\text{–}55}{1946\text{–}48}$	$\frac{1960\text{–}62}{1953\text{–}55}$	$\frac{1932\text{–}34}{1920\text{–}22}$	$\frac{1946\text{–}48}{1932\text{–}34}$	$\frac{1953\text{–}55}{1946\text{–}48}$	$\frac{1960\text{–}62}{1953\text{–}55}$
0 . . .	.64	.70	.79	.89	.65	.69	.79	.88
10 . . .	.76	.61	.78	.73	.69	.57	.70	.80
20 . . .	.77	.77	1.10	.93	.73	.50	.70	.94
30 . . .	.69	.69	.91	.92	.72	.59	.58	.85
40 . . .	.75	.73	.88	1.01	.77	.71	.76	.86
50 . . .	.83	.95	.89	.98	.92	.86	.83	.88
60 . . .	.92	1.03	.97	.98	.93	.93	.88	.89
70 . . .	.96	1.03	1.01	.97	.93	.95	.90	.90
80 . . .	.95	.95	1.00	.97	.90	.99	.93	.91

RATES OF MORTALITY AS A PROPORTION OF THE RATES FOR THE PERIOD 1901-1910

Age	Males				Females			
	$\frac{1932\text{-}34}{1901\text{-}10}$	$\frac{1946\text{–}48}{1901\text{–}10}$	$\frac{1953\text{–}55}{1901\text{-}10}$	$\frac{1960\text{–}62}{1901\text{–}10}$	$\frac{1932\text{–}34}{1901\text{–}10}$	$\frac{1946\text{-}48}{1901\text{–}10}$	$\frac{1953\text{–}55}{1901\text{–}10}$	$\frac{1960\text{–}62}{1901\text{–}10}$
0 . . .	.48	.34	.27	.24	.46	.32	.25	.22
10 . . .	.66	.40	.31	.23	.55	.31	.22	.18
20 . . .	.59	.46	.50	.47	.56	.28	.19	.18
30 . . .	.52	.36	.33	.30	.54	.32	.18	.16
40 . . .	.56	.41	.36	.37	.56	.40	.30	.26
50 . . .	.69	.66	.59	.58	.78	.67	.55	.49
60 . . .	.86	.88	.86	.84	.76	.71	.63	.56
70 . . .	.82	.85	.86	.84	.80	.76	.68	.61
80 . . .	.92	.87	.87	.84	.89	.88	.82	.75

NUMBER OF SURVIVORS (l_x) AT SELECTED AGES OUT OF 100,000 BIRTHS

Age (x)	Males				Females			
	1901–10	1946–48	1953–55	1960–62	1901–10	1946–48	1953–55	1960–62
0 . . .	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
10 . . .	86,622	95,619	96,488	97,062	88,395	96,549	97,228	97,664
20 . . .	84,493	94,562	95,460	96,215	86,459	95,953	96,774	97,278
30 . . .	80,844	92,967	93,801	94,726	82,909	94,740	96,055	96,649
40 . . .	75,887	90,823	90,861	92,859	78,001	92,758	94,715	95,481
50 . . .	68,221	85,946	87,553	88,473	71,945	89,011	91,573	92,713
60 . . .	56,782	74,251	76,256	77,456	63,247	81,257	84,665	86,537
70 . . .	38,275	52,230	54,054	54,944	46,793	65,398	69,613	72,505
80 . . .	14,330	22,785	23,658	24,669	21,356	35,401	39,633	43,453
90 . . .	1,652	3,144	3,507	3,800	3,566	6,556	8,087	10,005

COMPLETE EXPECTATION OF LIFE ($^\circ e_x$) AT SELECTED AGES

Age (x)	Males				Females			
	1901-10	1946–48	1953–55	1960–62	1901–10	1946–48	1953–55	1960–62
0 . . .	55.20	66.07	67.14	67.92	58.84	70.63	72.75	74.18
10 . . .	53.53	59.04	59.53	59.93	56.38	63.11	64.78	65.92
20 . . .	44.74	49.64	50.10	50.40	47.52	53.47	55.06	56.16
30 . . .	36.52	40.40	40.90	41.12	39.33	44.08	45.43	46.49
40 . . .	28.56	31.23	31.65	31.84	31.47	34.91	35.99	36.99
50 . . .	21.16	22.67	22.92	23.13	23.69	26.14	27.03	27.92
60 . . .	14.35	15.36	15.47	15.60	16.20	18.11	18.78	19.51
70 . . .	8.67	9.55	9.59	9.77	9.96	11.14	11.62	12.19
80 . . .	4.96	5.36	5.47	5.57	5.73	6.02	6.30	6.68

l_x = number surviving at specified ages out of 100,000 births. $^\circ e_x$ = complete expectation of life at specified ages.

As indicated in the foregoing tables, the progress towards lower mortality rates for both males and females has continued over the past sixty years or more. For example, the probability of a child born in 1961 dying in one year is less than one-quarter of the probability of death in one year attached to the child who was born sixty years ago. Even at advanced ages, the reductions which have occurred in mortality rates as compared with sixty years ago are very substantial. With the exception of males of ages forty to forty-seven and ages sixty-two to sixty-six lower mortality rates were experienced by males and females during 1960 to 1962 than for the period 1953 to 1955.

There is evidence that female longevity continues to improve at a faster rate than male longevity. It would seem that the risks associated with child-bearing for females are far outweighed by the greater accident propensity of younger males and the more rapid deterioration of health, presumably due to business and other pressures, of older males.

An improvement has occurred in male mortality from accidents of all types. Even though there is some indication that for females the accident rates have deteriorated slightly, the rates are, nevertheless, still substantially below the corresponding rates for males.

Age distribution at death

Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years, and thereafter the five-year groups 5-9 years, 10-14 years, etc. A summary in this form for the year 1965 is given for Australia in the following table.

DEATHS, BY AGE AT DEATH AND SEX: AUSTRALIA, 1965

Age at death	Males	Females	Persons	Age at death	Males	Females	Persons
Under 1 week	1,504	1,107	2,611	5– 9 years	249	184	433
1 week and under 2 weeks	98	66	164	10–14 "	276	153	429
2 weeks and under 3 weeks	55	48	103	15–19 "	686	264	950
3 weeks and under 4 weeks	47	22	69	20–24 "	681	244	925
				25–29 "	548	264	812
Total under 4 weeks	*1,704*	*1,243*	*2,947*	30–34 "	589	328	917
				35–39 "	998	584	1,582
4 weeks and under 3 months	229	143	372	40–44 "	1,465	866	2,331
3 months and under 6 months	230	159	389	45–49 "	1,999	1,286	3,285
6 months and under 12 months	194	215	409	50–54 "	3,480	1,760	5,240
				55–59 "	4.507	2,184	6,691
				60–64 "	5,748	2,894	8,642
Total under 1 year	*2,357*	*1,760*	*4,117*	65–69 "	6,731	4,157	10,888
				70–74 "	7,659	5,987	13,646
1 year	205	165	370	75–79 "	7,714	6.988	14,702
2 years	120	86	206	80–84 "	5,289	6,650	11,939
3 "	112	86	198	85 years and over	4,263	6,984	11,247
4 "	78	67	145	Age not stated	16	4	20
Total under 5 years	*2,872*	*2,164*	*5,036*	**Total all ages**	**55,770**	**43,945**	**99,715**

There are different mortality rates at various stages of life, and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups. The combined effect of various influences, i.e. the steady decline in the rate of mortality, the long-term decline in the birth-rate, and the effects of past and present migration on the age distribution of the population, is shown in the following table, which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1960 and for the year 1965.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA, 1901 TO 1964

(Per cent)

Period	Age at death (years)								
	Under 1	1–4	5–19	20–39	40–59	60–64	65 and over	Unspecified	Total
1901–10	20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911–20	16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921–30	13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931–40	7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941–50	6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00
1951–60	5.59	1.33	1.80	4.90	17.27	9.18	59.90	0.03	100.00
1965—									
Males	4.23	0.92	2.17	5.05	20.53	10.31	56.76	0.03	100.00
Females	4.00	0.92	1.37	3.23	13.87	6.59	70.01	0.01	100.00
Persons	4.13	0.92	1.82	4.25	17.60	8.66	62.60	0.02	100.00

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Year Book No. 39, page 614.

Age-specific death rates

In previous issues of the Year Book, average annual age-specific death rates were given for each State and Australia for the periods 1932–1934, 1946–1948, 1953–1955, and 1960–1962 (*see* Year Books, No. 37, pp. 778–9, No. 39, pp. 615–6, No. 44, pp. 640–1, and No. 52, p. 253). These rates were based on the age distribution of the population at the relevant censuses.

Intercensal estimates of the age distribution of the population are available for Australia and for the larger States. The following table shows age-specific death rates, i.e. the average number of deaths per 1,000 of population in each age group, for Australia for the year 1965, for males and females.

AGE-SPECIFIC DEATH RATES(*a*), BY SEX: AUSTRALIA, 1965

Age group (years)	Males	Females	Age group (years)	Males	Females
Under 1(*b*) .	20.6	16.2	45–49 . .	6.1	4.0
1– 4 . .	1.1	0.9	50–54 . .	10.8	5.6
5– 9 . .	0.4	0.3	55–59 . .	16.8	8.5
10–14 . .	0.5	0.3	60–64 . .	27.6	13.5
15–19 . .	1.3	0.5	65–69 . .	42.9	21.7
20–24 . .	1.6	0.6	70–74 . .	66.2	37.3
25–29 . .	1.5	0.8	75–79 . .	99.0	62.1
30–34 . .	1.7	1.0	80–84 . .	143.0	109.4
35–39 . .	2.5	1.6	85 and over .	258.4	214.2
40–44 . .	3.7	2.3			

(*a*) Average number of deaths per 1,000 of mid-year population in each age group estimated in respect of 30 June 1965. (*b*) Infant deaths per 1,000 live births registered.

Infant deaths and death rates—States and Territories

Compared with other countries, Australia occupies a favourable position in respect of infant mortality. In 1965, only a few countries recorded a lower rate than Australia. Rates for Australia and the more populous countries of the world for the latest available year are shown in the table in International Vital Statistics, pages 254-5. The next tables show, for each State and Territory for the period 1941 to 1966, the number of deaths under one year of age and the rates of infant mortality under one year, and for the period 1936 to 1965 the rates under four weeks, and four weeks and under one year.

INFANT MORTALITY UNDER ONE YEAR: STATES AND TERRITORIES, 1941 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941–45 . .	2,034	1,311	804	413	347	213	7	7	5,136
1946–50 . .	1,990	1,129	770	431	370	187	11	14	4,902
1951–55 . .	1,852	1,113	730	407	384	184	17	14	4,701
1956–60 . .	1,770	1,205	717	410	362	176	25	18	4,683
1961–65 . .	1,685	1,168	696	407	350	156	28	34	4,524
Annual total—									
1962 . .	1,825	1,219	754	409	380	184	37	32	4,840
1963 . .	1,673	1,242	722	399	353	153	27	38	4,607
1964 . .	1,634	1,098	673	397	328	166	30	41	4,367
1965 . .	1,492	1,109	598	385	351	125	23	34	4,117
1966 . .	1,490	1,116	581	356	329	108	19	46	4,045
Annual average rate(*a*)—									
1941–45 . .	35.9	34.5	34.3	32.9	33.3	39.3	61.7	18.7	34.97
1946–50 . .	28.9	23.8	27.5	26.5	28.1	26.5	37.4	19.9	26.98
1951–55 . .	25.1	20.7	23.6	22.6	24.4	23.7	36.3	15.4	23.34
1956–60 . .	22.2	19.7	21.0	20.5	21.4	20.6	36.0	13.7	21.05
1961–65 . .	20.3	17.9	19.7	19.0	20.8	18.5	31.2	17.6	19.42
Annual rate(*a*)—									
1962 . .	21.4	18.5	21.1	19.1	22.3	20.7	40.0	17.6	20.41
1963 . .	19.9	18.9	20.1	18.7	20.4	17.9	31.4	19.0	19.55
1964 . .	20.3	16.9	19.2	19.0	19.7	20.1	32.9	21.0	19.06
1965 . .	19.1	17.5	17.8	18.4	21.7	16.6	25.2	15.8	18.47
1966 . .	19.2	17.4	17.7	17.5	19.3	14.6	(*b*)	19.8	18.17

(*a*) Number of deaths of children aged under one year per 1,000 live births registered. (*b*) Less than twenty events; rates not calculated.

INFANT MORTALITY RATES(*a*)—UNDER FOUR WEEKS STATES AND TERRITORIES, 1936 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1936–40 . .	27.6	25.9	26.1	21.6	22.6	29.6	(*b*)	(*b*)	26.19
1941–45 . .	24.3	24.3	24.3	20.9	20.6	27.1	35.3	12.5	23.85
1946–50 . .	20.5	17.6	19.9	18.4	19.5	19.3	21.4	15.8	19.34
1951–55 . .	17.3	15.2	17.1	14.9	17.3	16.3	19.6	11.3	16.45
1956–60 . .	16.0	14.5	15.1	13.7	15.0	13.3	24.2	9.6	15.07
1961–65 . .	14.5	13.6	14.2	13.0	14.1	12.6	19.4	12.6	13.99
Annual rate—									
1961 . .	14.9	13.5	14.8	13.0	12.8	11.9	(*b*)	(*b*)	14.01
1962 . .	15.5	14.2	15.0	13.4	14.5	14.1	(*b*)	11.5	14.71
1963 . .	14.1	14.9	14.8	12.9	14.9	12.1	(*b*)	13.5	14.32
1964 . .	14.3	12.9	13.5	13.3	13.0	13.8	25.2	15.3	13.64
1965 . .	13.9	12.7	12.5	12.6	15.2	11.0	(*b*)	11.6	13.22

(*a*) Number of deaths of children aged under four weeks per 1,000 live births registered. (*b*) Less than twenty events; rates not calculated.

INFANT MORTALITY RATES(*a*)—FOUR WEEKS AND UNDER ONE YEAR STATES AND TERRITORIES, 1936 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1936–40 . .	13.5	11.7	10.6	11.5	17.1	11.7	(*b*)	(*b*)	12.62
1941–45 . .	11.6	10.2	10.0	12.1	12.7	12.2	(*b*)	(*b*)	11.12
1946–50 . .	8.4	6.3	7.5	8.1	8.6	7.2	15.9	(*b*)	7.64
1951–55 . .	7.8	5.5	6.5	7.6	7.1	7.3	16.7	(*b*)	6.89
1956–60 . .	6.2	5.2	5.8	6.8	6.4	7.3	11.8	4.0	5.98
1961–65 . .	5.8	4.3	5.5	6.0	6.7	5.9	11.4	5.2	5.43
Annual rate—									
1961 . .	6.0	4.3	5.2	7.0	6.9	4.9	(*b*)	(*b*)	5.53
1962 . .	5.9	4.3	6.1	5.7	7.8	6.6	(*b*)	(*b*)	5.70
1963 . .	5.8	4.0	5.3	5.8	5.6	5.9	(*b*)	(*b*)	5.23
1964 . .	6.0	4.0	5.7	5.8	6.7	6.3	(*b*)	(*b*)	5.42
1965 . .	5.2	4.8	5.3	5.8	6.5	5.6	(*b*)	(*b*)	5.25

(*a*) Number of deaths of children aged four weeks and under one year per 1,000 live births registered. (*b*) Less than twenty events; rates not calculated.

Because of the smallness of the numbers of these deaths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e. number of such deaths per thousand live births) are subject to considerable fluctuation.

Infant deaths and death rates—Australia

The fact that out of 598,886 male infants born from 1961 to 1965, 12,981 (21.68 per 1,000) died during the first year of life, while of 565,873 female infants only 9,639 (17.03 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Still-births for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES, BY SEX: AUSTRALIA, 1936 TO 1965

Period	Number of deaths						Rates(*a*)					
	Neonatal—under four weeks		Post-neonatal—four weeks and under one year		Total under one year		Neonatal—under four weeks		Post-neonatal—four weeks and under one year		Total under one year	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
	ANNUAL AVERAGES						AVERAGE ANNUAL RATES					
1936–40	1,816	1,353	863	663	2,679	2,016	29.30	22.93	13.93	11.23	43.23	34.16
1941–45	2,007	1,495	914	720	2,921	2,215	26.66	20.88	12.14	10.05	38.80	30.93
1946–50	2,024	1,490	784	604	2,808	2,094	21.68	16.86	8.40	6.84	30.08	23.70
1951–55	1,907	1,406	776	612	2,683	2,018	18.47	14.32	7.52	6.24	25.99	20.56
1956–60	1,921	1,432	741	589	2,662	2,021	16.81	13.24	6.48	5.45	23.29	18.69
1961–65	1,887	1,373	709	555	2,596	1,928	15.75	12.13	5.92	4.90	21.67	17.03
	ANNUAL TOTALS						ANNUAL RATES					
1961	1,951	1,410	739	589	2,690	1,999	15.85	12.06	6.00	5.04	21.85	17.10
1962	2,038	1,451	752	599	2,790	2,050	16.69	12.62	6.16	5.21	22.85	17.83
1963	1,946	1,429	690	542	2,636	1,971	16.06	12.48	5.70	4.73	21.76	17.21
1964	1,795	1,331	713	528	2,508	1,859	15.20	11.98	6.04	4.75	21.24	16.73
1965	1,704	1,243	653	517	2,357	1,760	14.89	11.47	5.70	4.77	20.59	16.24

(*a*) Number of deaths per 1,000 male or female live births registered.

From the following table, showing particulars of infant deaths in the first four weeks of life, or the neonatal period, it will be seen that for both males and females the risk of death is very much greater during the first day of life than subsequently.

INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS, BY SEX AUSTRALIA, 1936 TO 1965

Period	Number of deaths						Rates(*a*)					
	Early neonatal				Late neonatal—one week and under four weeks		Early neonatal				Late neonatal—one week and under four weeks	
	Under one day		One day and under one week				Under one day		One day and under one week			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
	ANNUAL AVERAGES						AVERAGE ANNUAL RATES					
1936–40	(*b*)	(*b*)	*c* 1,496	*c* 1,120	320	233	(*b*)	(*b*)	*c*24.13	*c*18.99	5.17	3.94
1941–45	906	674	728	541	373	280	12.03	9.42	9.67	7.55	4.96	3.91
1946–50	986	731	758	539	280	220	10.56	8.28	8.12	6.09	3.00	2.49
1951–55	918	713	742	508	247	185	8.88	7.26	7.19	5.17	2.40	1.89
1956–60	972	765	705	490	244	177	8.50	7.07	6.17	4.53	2.13	1.64
1961–65	986	723	691	496	210	154	8.23	6.39	5.77	4.38	1.75	1.36
	ANNUAL TOTALS						ANNUAL RATES					
1961	976	744	739	490	236	176	7.93	6.36	6.00	4.19	1.92	1.51
1962	1,080	733	719	548	239	170	8.84	6.38	5.89	4.76	1.96	1.48
1963	1,043	765	691	509	212	155	8.61	6.68	5.70	4.44	1.75	1.36
1964	940	719	691	479	164	133	7.96	6.47	5.85	4.31	1.39	1.20
1965	889	655	615	452	200	136	7.77	6.04	5.37	4.17	1.75	1.25

(*a*) Number of deaths per 1,000 male or female live births registered. (*b*) Not available. (*c*) Includes under one day.

A graph showing infant mortality rates for each year from 1910 to 1966 will be found on the opposite page.

INFANT MORTALITY RATES: AUSTRALIA, 1910-1966

(INFANT DEATHS PER 1,000 LIVE BIRTHS)

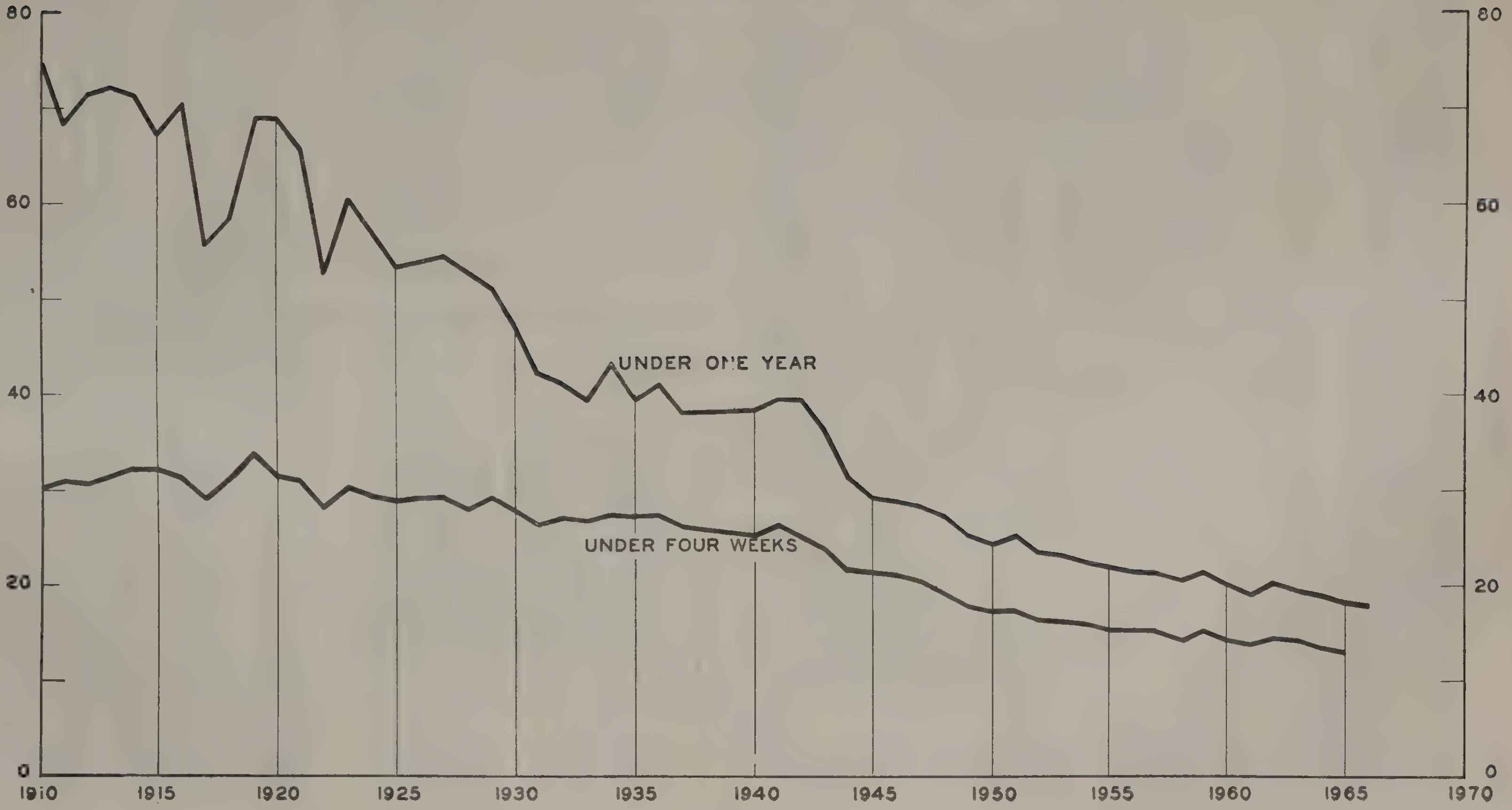


PLATE 21

Causes of death—children under one year

Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies. A summary for 1965 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH AUSTRALIA, 1965

International Classification of Diseases number	Cause of death	Age at death										Total under one year
		Days		Total under one week	Weeks			Months				
		Under 1	1–6		1	2	3	1–2 (a)	3–5	6–8	9–11	
	Causes mainly of prenatal and natal origin—											
750–759	Congenital malformations	166	176	342	57	41	25	128	97	48	27	765
760, 761	Birth injury	312	204	516	22	3	1	1	..	1	..	544
762	Postnatal asphyxia and atelectasis	306	192	498	13	6	3	3	6	1	2	532
769	Attributed to certain diseases of the mother	44	36	80	2	..	..	..	1	..	..	83
770	Erythroblastosis	61	30	91	1	1	..	1	..	..	1	95
771	Haemorrhagic disease of newborn	15	24	39	5	1	1	1	..	..	..	47
773	Ill-defined diseases peculiar to early infancy	116	108	224	7	4	2	9	5	4	5	260
774, 776	Immaturity alone, or with mention of any other subsidiary condition	475	215	690	10	4	2	4	..	..	..	710
	Total	*1,495*	*985*	*2,480*	*117*	*60*	*34*	*147*	*109*	*54*	*35*	*3,036*
	Causes mainly of postnatal origin—											
571, 764	Gastro-enteritis (including diarrhoea of newborn)	..	..	..	4	5	6	17	27	31	28	118
(b)	Pneumonia and bronchitis	12	39	51	13	15	13	83	123	71	37	406
(c)	Septicaemia, skin and subcutaneous tissue infections, sepsis of newborn	..	9	9	9	7	4	7	2	2	2	42
057, 340	Meningococcal infections and non-meningococcal meningitis	..	1	1	3	4	2	15	5	7	9	46
(d)	Causes classified as infective or mainly infective in origin not specified above	2	2	4	2	2	2	27	22	20	12	91
E921-E925	Accidental mechanical suffocation from vomit, food, foreign body or in bed and cradle	..	5	5	2	4	3	21	39	10	9	93
E926, E980-E985	Lack of care, neglect, infanticide	3	3	6	..	..	..	2	2	3	1	14
(e)	Other accidents, poisonings and violence	1	..	1	1	..	..	5	8	6	12	33
	Total	*18*	*59*	*77*	*34*	*37*	*30*	*177*	*228*	*150*	*110*	*843*
140–239	Neoplasms	1	2	3	1	..	2	1	5	5	2	19
Residual	Other causes remaining	30	21	51	12	6	3	47	47	35	18	219
	All causes	1,544	1,067	2,611	164	103	69	372	389	244	165	4,117

(a) Age four weeks and under three months. (b) 490–493, 500–502, 763. (c) 053,690–698, 765–768. (d) 001–052, 054–056, 058–138, 391–393, 470–483, 518 519. (e) E800–E920, E927–E979, E990–E999.

The following table summarises the detail contained in the previous table, and, in addition, shows the proportions of deaths from the various causes in each of the periods—under one week, one week and under one month, one month and under one year, and total under one year.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH NUMBERS AND PROPORTIONS, AUSTRALIA, 1965

International Classification of Diseases number	Cause of death	Age at death						Total under one year	
		Under one week		One week and under one month		One month and under one year			
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
	Causes mainly of prenatal and natal origin—								
750–759	Congenital malformations .	342	13.1	123	36.6	300	25.6	765	18.6
760, 761	Birth injury	516	19.8	26	7.7	2	0.2	544	13.2
762	Postnatal asphyxia and atelectasis	498	19.1	22	6.5	12	1.0	532	12.9
769	Attributed to certain diseases of the mother	80	3.1	2	0.6	1	0.1	83	2.0
770	Erythroblastosis . . .	91	3.5	2	0.6	2	0.2	95	2.3
771	Haemorrhagic disease of newborn	39	1.5	7	2.1	1	0.1	47	1.1
773	Ill-defined diseases peculiar to early infancy . . .	224	8.6	13	3.9	23	2.0	260	6.3
774, 776	Immaturity alone, or with mention of any subsidiary condition	690	26.4	16	4.8	4	0.3	710	17.2
	Total	*2,480*	*95.0*	*211*	*62.8*	*345*	*29.5*	*3,036*	*73.7*
	Causes mainly of postnatal origin—								
571, 764	Gastro-enteritis (including diarrhoea of newborn) . .	..	..	15	4.5	103	8.8	118	2.9
(*a*)	Pneumonia and bronchitis .	51	2.0	41	12.2	314	26.8	406	9.9
	Other	26	1.0	45	13.4	248	21.2	319	7.7
	Total	*77*	*2.9*	*101*	*30.1*	*665*	*56.8*	*843*	*20.5*
140–239, residual	Neoplasms and other causes remaining	54	2.1	24	7.1	160	13.7	238	5.8
	All causes . . .	2,611	100.0	336	100.0	1,170	100.0	4,117	100.0

(*a*) 490–493, 500–502, 763.

Causes of death

The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death, and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adopted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death was used in Australia for deaths registered in 1950 to 1957. The Seventh Revision has been used for deaths registered in 1958 and subsequent years. The Sixth Revision, for the first time in connection with the International Classification, laid down rules for a uniform method of selecting the main cause to be tabulated if more than one cause is stated on the death certificate. These rules were maintained in the Seventh Revision, which was concerned mainly with certain essential changes and amendment of errors and inconsistencies in the previous classification. Prior to 1950 the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform to successive revisions of the International List.

The adoption of the new method introduced with the Sixth Revision and maintained in the Seventh marked a fundamental change in Australian cause of death statistics, emphasis now being placed on the underlying cause of death as indicated by the certifying practitioner. This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. A complete detailed classification of causes of death for Australia for 1950 according to both the Fifth and Sixth Revisions was shown in *Demography*, Bulletin No. 68, 1950.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation—the Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations for 1965 which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Tables A and B show deaths of males and females, respectively, in age groups, and Table C shows the total numbers of males and females who died, the death rates per million of mean population, and the percentage of total deaths.

A. DEATHS OF MALES, BY CAUSE OF DEATH AND AGE GROUP: AUSTRALIA, 1965

Abbreviated List of 50 Causes (Based on the Seventh Revision of the International List)

Cause of death(*a*)	Detailed list numbers	Age groups (years)									
		0	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65 and over	Total
B 1 Tuberculosis of respiratory system	001–008	..	..	..	..	..	11	33	43	130	217
B 2 Tuberculosis, other forms	010–019	..	1	..	..	..	1	2	1	4	9
B 3 Syphilis and its sequelae	020–029	..	..	..	..	..	1	2	17	36	56
B 6 Dysentery, all forms	045–048	..	..	..	..	..	..	1	..	..	1
B 8 Diphtheria	055	..	1	..	..	..	..	..	..	..	1
B 9 Whooping cough	056	1	..	..	..	..	..	..	..	..	1
B10 Meningococcal infections	057	2	7	2	..	1	..	..	..	..	12
B14 Measles	085	3	2	..	..	..	..	..	..	1	6
B17 All other diseases classified as infective and parasitic	(*b*)	25	10	9	5	3	12	18	15	29	126
B18 Malignant neoplasms of—											
Digestive organs and peritoneum	150–159	..	1	4	7	24	107	296	597	1,789	2,825
Lung	162, 163	..	..	1	..	10	55	246	672	1,115	2,099
Breast	170	..	..	..	..	..	..	2	2	7	11
Genital organs	171–179	..	1	..	8	12	12	16	81	797	927
Urinary organs	180, 181	2	4	1	..	4	19	49	101	287	467
Leukaemia and aleukaemia	204	1	23	40	38	23	21	56	53	142	397
Other malignant and lymphatic neoplasms	(*c*)	4	25	40	50	57	136	274	383	643	1,612
B19 Benign neoplasms and neoplasms of unspecified nature	210–239	2	2	5	2	3	3	19	21	28	85
B20 Diabetes mellitus	260	1	..	1	2	6	22	56	118	374	580
B21 Anaemias	290–293	1	4	4	2	1	3	8	14	91	128
B22 Vascular lesions affecting central nervous system	330–334	2	1	5	16	33	126	360	912	(*d*) 4,354	5,809
B23 Non-meningococcal meningitis	340	25	8	3	..	2	5	3	5	5	56
B24 Rheumatic fever	400–402	..	..	3	3	1	3	2	..	..	12
B25 Chronic rheumatic heart disease	410–416	..	..	1	13	8	43	55	94	101	315
B26 Arteriosclerotic heart disease	420	..	..	1	5	30	553	2,005	4,253	(*d*) 10,405	17,252
B26 Degenerative heart disease	421, 422	4	..	1	5	18	44	122	231	(*d*) 1,679	2,104
B27 Other diseases of heart	430–434	4	2	5	2	11	21	80	183	1,290	1,598
B28 Hypertension with heart disease	440–443	..	..	..	1	4	15	41	101	412	574
B29 Hypertension without mention of heart	444–447	..	..	..	2	6	23	63	65	200	359
B30 Influenza	480–483	4	2	2	..	2	6	16	6	43	81
B31 Pneumonia	490–493	181	56	17	23	12	42	97	197	(*d*) 1,278	1,903
B32 Bronchitis	500–502	13	8	2	2	2	18	96	369	1,378	1,888
B33 Ulcer of stomach and duodenum	540, 541	..	..	..	..	5	22	63	93	247	430
B34 Appendicitis	550–553	..	4	2	1	4	5	7	10	23	56
B35 Intestinal obstruction and hernia	560, 561, 570	26	4	2	1	..	8	13	35	134	223
B36 Gastritis, duodenitis, enteritis, and colitis except diarrhoea of the newborn	543, 571, 572	62	40	10	1	..	4	12	25	85	239
B37 Cirrhosis of liver	581	1	2	..	1	7	34	94	100	107	346
B38 Nephritis and nephrosis	590–594	2	3	7	18	23	45	69	106	209	482
B39 Hyperplasia of prostate	610	..	..	..	..	..	..	..	21	(*d*) 336	357
B41 Congenital malformations	750–759	411	37	26	30	16	15	21	20	16	592
B42 Birth injuries, postnatal asphyxia and atelectasis	760–762	630	..	..	..	..	..	..	..	..	630
B43 Infections of the newborn	763–768	86	..	..	..	..	..	..	..	..	86

For footnotes *see* following page.

A. DEATHS OF MALES, BY CAUSE OF DEATH AND AGE GROUP AUSTRALIA, 1965—*continued*

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)—*continued*

Cause of death(*a*)	Detailed list numbers	Age groups (years)									
		0	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65 and over	Total
B44 Other diseases peculiar to early infancy, and immaturity unqualified	769–776	687	..	..	..	..	..	..	..	..	687
B45 Senility without mention of psychosis, ill-defined and unknown causes	780–795	9	3	..	4	4	11	14	25	(*e*) 159	229
B46 General arteriosclerosis	450	..	..	..	..	..	..	13	52	(*d*) 913	978
Other diseases of circulatory system	451-468	..	1	..	4	9	21	51	130	464	680
Other diseases of respiratory system	470–475 510–527	40	18	6	6	7	8	46	111	339	581
All other diseases	Residual	53	44	53	64	61	171	301	382	1,124	2,253
BE47 Motor vehicle accidents	E810–E835	6	73	122	715	332	291	267	252	305	2,363
BE48 All other accidents	E800–E802. E840–E962	67	124	139	231	202	265	240	193	(*e*) 419	1,880
BE49 Suicide and self-inflicted injury	E963, E970–E979	..	..	5	100	169	239	238	162	(*f*) 162	1,075
BE50 Homicide and operations of war	E964, E965, E980–E999	2	4	6	5	25	22	12	4	12	92
All causes	..	2,357	515	525	1,367	1,137	2,463	5,479	10,255	(*g*)31,656	55,770

(*a*) No male deaths were recorded in the following categories in 1965: B4, Typhoid fever (040); B5, Cholera (043); B7, Scarlet fever and streptococcal sore throat (050, 051); B11, Plague (058); B12, Acute poliomyelitis (080); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (*b*) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086 096, 120-138. (*c*) All causes, 140 205 not shown above. (*d*) Includes 1, age 'not stated'. (*e*) Includes 3, age 'not stated'. (*f*) Includes 4, age 'not stated'. (*g*) Includes 16, age 'not stated'.

B. DEATHS OF FEMALES, BY CAUSE OF DEATH AND AGE GROUP: AUSTRALIA, 1965

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(*a*)	Detailed list numbers	Age groups (years)									
		0	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65 and over	Total
B 1 Tuberculosis of respiratory system	001–008	..	1	1	..	4	6	12	16	19	59
B 2 Tuberculosis, other forms	010–019	..	1	..	..	1	2	..	1	4	9
B 3 Syphilis and its sequelae	020–029	1	..	..	1	..	..	5	9	5	21
B 6 Dysentery, all forms	045–048	1	..	..	..	..	1	..	3	..	5
B 7 Scarlet fever and streptococcal sore throat	050, 051	..	..	1	..	..	..	..	..	..	1
B 8 Diphtheria	055	..	..	..	..	..	..	..	..	1	1
B 9 Whooping cough	056	2	1	..	..	..	..	..	..	..	3
B10 Meningococcal infections	057	6	3	..	..	1	1	..	1	2	14
B14 Measles	085	1	10	2	..	..	..	..	1	..	14
B17 All other diseases classified as infective and parasitic	(*b*)	10	10	9	8	6	9	9	14	38	113
B18 Malignant neoplasms of—											
Digestive organs and peritoneum	150–159	1	1	..	2	27	83	218	402	1,824	2,558
Lung	162, 163	..	..	..	..	1	14	50	65	166	296
Breast	170	..	..	..	2	24	113	247	284	604	1,274
Genital organs	171–179	..	2	2	6	13	91	204	252	477	1,047
Urinary organs	180, 181	..	5	2	1	1	5	22	38	147	221
Leukaemia and aleukaemia	204	2	23	29	12	14	18	27	32	101	258
Other malignant and lymphatic neoplasms	(*c*)	2	16	33	30	40	88	155	203	572	1,139
B19 Benign neoplasms and neoplasms of unspecified nature	210–239	5	..	3	4	2	13	20	21	32	100
B20 Diabetes mellitus	260	..	1	3	2	8	10	38	145	685	892
B21 Anaemias	290–293	1	7	4	2	..	2	8	15	125	164

For footnotes *see* following page.

B. DEATHS OF FEMALES, BY CAUSE OF DEATH AND AGE GROUP
AUSTRALIA, 1965—*continued*

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)—*continued*

Cause of death(*a*)	Detailed list numbers	Age groups (years)									
		0	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65 and over	Total
B22 Vascular lesions affecting central nervous system	330–334	1	..	1	10	32	131	431	718	(*d*) 6,511	7,835
B23 Non-meningococcal meningitis	340	13	7	4	2	..	..	3	6	6	41
B24 Rheumatic fever	400–402	..	1	3	2	..	..	..	..	..	6
B25 Chronic rheumatic heart disease	410–416	..	..	1	9	16	43	84	126	205	484
B26 Arteriosclerotic heart disease	420	..	..	..	1	9	117	458	1,327	(*d*) 8,276	10,188
B26 Degenerative heart disease	421, 422	2	1	..	4	4	17	56	102	2,196	2,382
B27 Other diseases of heart	430–434	3	2	3	7	6	23	39	112	1,484	1,679
B28 Hypertension with heart disease	440–443	..	..	..	..	2	13	39	64	695	813
B29 Hypertension without mention of heart	444–447	..	..	..	2	1	13	34	52	277	379
B30 Influenza	480–483	9	2	2	2	2	..	2	3	39	61
B31 Pneumonia	490–493	110	46	19	9	16	37	51	75	1,104	1,467
B32 Bronchitis	500–502	9	13	2	3	7	7	24	51	242	358
B33 Ulcer of stomach and duodenum	540, 541	1	1	1	2	8	7	23	26	120	189
B34 Appendicitis	550–553	..	1	2	2	1	2	..	1	6	15
B35 Intestinal obstruction and hernia	560, 561, 570	17	..	..	1	2	8	12	18	200	258
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	543, 571, 572	45	27	3	4	3	6	5	16	114	223
B37 Cirrhosis of liver	581	3	..	2	3	8	20	43	43	79	201
B38 Nephritis and nephrosis	590–594	2	1	11	7	15	40	66	75	209	426
B40 Complications of pregnancy, childbirth and the puerperium	640–652, 670–689	..	..	..	27	25	20	2	..	..	74
B41 Congenital malformations	750–759	354	53	38	26	15	15	14	17	17	549
B42 Birth injuries, post-natal asphyxia and atelectasis	760–762	446	..	..	..	..	..	..	..	..	446
B43 Infections of the newborn	763–768	55	..	..	..	..	..	..	..	..	55
B44 Other diseases peculiar to early infancy, and immaturity unqualified	769–776	514	1	..	..	..	..	..	..	..	515
B45 Senility without mention of psychosis, ill-defined and unknown causes	780–795	2	3	1	3	5	3	4	10	259	290
B46 General arteriosclerosis	450	..	..	..	..	..	..	6	18	1,218	1,242
B46 Other diseases of circulatory system	451–468	1	..	3	5	14	21	21	58	321	444
B46 Other diseases of respiratory system	470–475, 510–527	36	17	5	6	3	10	14	30	173	294
B46 All other diseases	Residual	40	38	31	45	71	167	272	344	1,269	2,277
BE47 Motor vehicle accidents	E810–E835	10	42	60	170	56	70	98	94	200	800
BE48 All other accidents	E800–E802, E840–E962	49	62	47	19	25	65	81	75	(*d*) 654	1,077
BE49 Suicide and self-inflicted injury	E963, E970–E979	..	..	..	57	92	123	136	113	(*d*) 89	610
BE50 Homicide and operations of war	E964, E965, E980–E999	6	5	9	10	12	16	13	2	5	78
All causes	..	1,760	404	337	508	592	1,450	3,046	5,078	(*e*) 30,770	43,945

(*a*) No female deaths were recorded in the following categories in 1965: B4, Typhoid fever (040); B5 Cholera (043); B11, Plague (058); B12, Acute poliomyelitis (080): B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100 108); B16, Malaria (110-117). (*b*) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (*c*) All causes, 140-205 not shown above. (*d*) Includes 1, age 'not stated'. (*e*) Includes 4, age 'not stated'.

C. DEATHS, BY CAUSE OF DEATH AND SEX NUMBERS AND RATES, AUSTRALIA, 1965

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)

Cause of death	Detailed list numbers	Number of deaths			Rate per 1,000,000 of mean population	Percentage of total deaths
		Males	Females	Persons		
B 1 Tuberculosis of respiratory system	001–008	217	59	276	24	0.28
B 2 Tuberculosis, other forms	010–019	9	9	18	2	0.02
B 3 Syphilis and its sequelae	020–029	56	21	77	7	0.08
B 4 Typhoid fever	040	..	..	..	..	..
B 5 Cholera	043	..	..	..	..	..
B 6 Dysentery, all forms	045–048	1	5	6	1	0.01
B 7 Scarlet fever and streptococcal sore throat	050, 051	..	1	1	(*a*)	0.00
B 8 Diphtheria	055	1	1	2	(*a*)	0.00
B 9 Whooping cough	056	1	3	4	(*a*)	0.00
B10 Meningococcal infections	057	12	14	26	2	0.03
B11 Plague	058	..	..	..	..	..
B12 Acute poliomyelitis	080	..	..	..	..	..
B13 Smallpox	084	..	..	..	..	..
B14 Measles	085	6	14	20	2	0.02
B15 Typhus and other rickettsial diseases	100–108	..	..	..	..	..
B16 Malaria	110–117	..	..	..	..	..
B17 All other diseases classified as infective and parasitic	(*b*)	126	113	239	21	0.24
B18 Malignant neoplasms of—						
Digestive organs and peritoneum	150–159	2,825	2,558	5,383	475	5.40
Lung	162, 163	2,099	296	2,395	211	2.40
Breast	170	11	1,274	1,285	113	1.29
Genital organs	171–179	927	1,047	1,974	174	1.98
Urinary organs	180, 181	467	221	688	61	0.69
Leukaemia and aleukaemia	204	397	258	655	58	0.66
Other malignant and lymphatic neoplasms	(*c*)	1,612	1,139	2,751	243	2.76
B19 Benign and unspecified neoplasms	210–239	85	100	185	16	0.19
B20 Diabetes mellitus	260	580	892	1,472	130	1.48
B21 Anaemias	290–293	128	164	292	26	0.29
B22 Vascular lesions affecting central nervous system	330–334	5,809	7,835	13,644	1,204	13.68
B23 Non-meningococcal meningitis	340	56	41	97	9	0.10
B24 Rheumatic fever	400–402	12	6	18	2	0.02
B25 Chronic rheumatic heart disease	410–416	315	484	799	71	0.80
B26 Arteriosclerotic heart disease	420	17,252	10,188	27,440	2,421	27.52
Degenerative heart disease	421, 422	2,104	2,382	4,486	396	4.50
B27 Other diseases of heart	430–434	1,598	1,679	3,277	289	3.29
B28 Hypertension with heart disease	440–443	574	813	1,387	122	1.39
B29 Hypertension without mention of heart	444–447	359	379	738	65	0.74
B30 Influenza	480–483	81	61	142	13	0.14
B31 Pneumonia	490–493	1,903	1,467	3,370	297	3.38
B32 Bronchitis	500–502	1,888	358	2,246	198	2.25
B33 Ulcer of stomach and duodenum	540, 541	430	189	619	55	0.62
B34 Appendicitis	550–553	56	15	71	6	0.07
B35 Intestinal obstruction and hernia	560, 561, 570	223	258	481	42	0.48
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	543, 571, 572	239	223	462	41	0.46
B37 Cirrhosis of liver	581	346	201	547	48	0.55
B38 Nephritis and nephrosis	590–594	482	426	908	80	0.91
B39 Hyperplasia of prostate	610	357	..	357	32	0.36
B40 Complications of pregnancy, child-birth and the puerperium	640–652 670–689	..	74	74	7	0.07
B41 Congenital malformations	750–759	592	549	1,141	101	1.14
B42 Birth injuries, post-natal aspyhxia and atelectasis	760–762	630	446	1,076	95	1.08
B43 Infections of the newborn	763–768	86	55	141	12	0.14
B44 Other diseases peculiar to early infancy, and immaturity unqualified	769–776	687	515	1,202	106	1.21
B45 Senility without mention of psychosis, ill-defined and unknown causes	780–795	229	290	519	46	0.52
B46 General arteriosclerosis	450	978	1,242	2,220	196	2.23
Other diseases of circulatory system	451–468	680	444	1,124	99	1.13
Other diseases of respiratory system	470–475 510–527	581	294	875	77	0.88
All other diseases	Residual	2,253	2,277	4,530	400	4.54
BE47 Motor vehicle accidents	E810–E835	2,363	800	3,163	279	3.17
BE48 All other accidents	E800–E802 E840–E962	1,880	1,077	2,957	261	2.97
BE49 Suicide and self-inflicted injury	E963. E970–E979	1,075	610	1,685	149	1.69
BE50 Homicide and operations of war	E964, E965 E980–E999	92	78	170	15	0.17
All causes	..	55,770	43,945	99,715	8,798	100.00

(*a*) Less than 0.5. (*b*) 030–039, 041, 042, 044, 049, 052–054, 059–074, 081–083, 086–096, 120–138.
(c) 140-148, 160, 161, 164, 165, 190–203, 205.

Deaths from certain important causes

In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pages 244–7) are indicated in parentheses for each cause or group of causes.

All forms of tuberculosis (*B1*, *B2*). In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Year Book No. 39, page 626. The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1965, together with figures for 1931, 1941, 1951 and 1961.

DEATHS FROM TUBERCULOSIS (ALL FORMS), BY AGE GROUP AND SEX AUSTRALIA, 1931 TO 1965

Age group (years)	Males					Females				
	1931	1941	1951	1961	1965	1931	1941	1951	1961	1965
0–14	90	63	23	5	1	81	54	35	1	3
15–29	294	162	46	2	..	487	275	68	..	3
30–44	585	428	135	25	12	422	319	142	20	10
45–64	674	793	570	128	79	252	251	126	41	29
65 and over	193	279	306	175	134	89	110	86	50	23
Not stated	..	..	..	..	..	..	..	1	..	..
Total	**1,836**	**1,725**	**1,080**	**335**	**226**	**1,331**	**1,009**	**458**	**112**	**68**

The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 49 per 100,000 of mean population in 1931 to 18 in 1951, and to 3 in 1965. The reductions in the younger age groups are much greater, as can be seen from the table above. In making these comparisons, consideration of the effect of the change in basis from the Fifth to the Sixth Revision of the International List (*see* above) is particularly important.

Of the more developed countries, those with the lowest death rates from tuberculosis per 100,000 of population are: Netherlands, 1.9; Australia, 2.6; Denmark, 3.0; Canada, 3.5; Israel, 3.5; New Zealand, 3.7; and United States of America, 4.3. Rates for selected countries in each continent are:

Africa—South Africa (white population), 6.0; United Arab Republic, 18.1.
North America—Dominican Republic, 15.5; Mexico, 25.1; Guatemala, 31.1.
South America—Argentine, 19.9; Peru, 54.1; Brazil, 82.3.
Asia—Japan, 23.6; India, 82.7; Philippines, 79.6.
Europe—England and Wales, 5.3; Scotland, 7.2; Italy, 14.7; France, 15.6; Poland, 41.1.

Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (*B18*). Deaths classified under this heading according to the Sixth and Seventh Revisions of the International List (used in Australia for deaths registered since 1950) are not directly comparable in total with those on the Fifth Revision basis (*see* Year Book No. 39, p. 628).

A summary regarding seat of disease for 1965 is given below.

DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC AND HAEMATOPOIETIC TISSUES, BY SEAT OF DISEASE AND SEX: AUSTRALIA, 1965

Seat of disease	Males	Females	Persons
Malignant neoplasms—			
Buccal cavity and pharynx	199	78	277
Digestive organs and peritoneum—			
Oesophagus	208	109	317
Stomach	889	611	1,500
Small intestine	15	22	37
Large intestine	723	968	1,691
Other	990	848	1,838
Respiratory system	2,240	334	2,574
Breast	11	1,274	1,285
Uterus	..	596	596
Other female genital organs	..	451	451
Male genital organs	927	..	927
Urinary organs	467	221	688
Skin	264	172	436
Other and unspecified organs	615	541	1,156
Total, malignant neoplasms	*7,548*	*6,225*	*13,773*
Neoplasms of lymphatic and haematopoietic tissues—			
Lymphosarcoma and reticulosarcoma	207	151	358
Hodgkin's disease	84	61	145
Other forms of lymphoma (reticulosis)	38	29	67
Multiple myeloma (plasmocytoma)	64	66	130
Leukaemia and aleukaemia	397	258	655
Mycosis fungoides	..	3	3
Total, neoplasms of lymphatic and haematopoietic tissues	*790*	*568*	*1,358*
Grand total	**8,338**	**6,793**	**15,131**

The ages of males and females who died from malignant neoplasms in 1965 are given below, together with figures for 1931, 1941, 1951, and 1961. The increase in the number of deaths from malignant neoplasms in the years since 1931 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 75 per cent between 1931 and 1965, the number of people aged 55 years and over increased by about 118 per cent. The increase in the number of deaths in the lower age groups from 1951 is due partly to the inclusion of neoplasms of lymphatic and haematopoietic tissues, and it is probable also that part of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

DEATHS FROM MALIGNANT NEOPLASMS(*a*), BY AGE GROUP AND SEX AUSTRALIA, 1931 TO 1965

Age group (years)	Males					Females				
	1931	1941	1951 (*a*)	1961 (*a*)	1965 (*a*)	1931	1941	1951 (*a*)	1961 (*a*)	1965 (*a*)
Under 15 . .	25	21	91	130	147	23	25	71	114	118
15–29 . . .	43	49	103	109	152	38	45	76	84	104
30–44 . . .	196	176	275	380	431	326	344	387	481	481
45–54 . . .	410	465	584	823	939	548	685	692	847	923
55–64 . . .	868	983	1,334	1,699	1,889	744	926	1,180	1.207	1,276
65 and over . .	1,942	2,561	3,128	4,239	4,780	1,426	2,198	2,698	3,575	3,891
Not stated . .	..	..	..	..	..	..	..	..	1	..
Total . .	**3,484**	**4,255**	**5,515**	**7,380**	**8,338**	**3,105**	**4,223**	**5,104**	**6,309**	**6,793**

(*a*) Includes neoplasms of lymphatic and haematopoietic tissues.

The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent they reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (*see* previous paragraph). In 1931 the rate for Australia was 101 (males, 105; females, 97); in 1941 it was 119 (males, 119; females, 120); and in 1951 it had risen to 126 (males, 130; females, 122). Figures for 1961 gave a rate of 130 (males, 139; females, 121), and for 1965 a rate of 133 (males, 146; females, 121).

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows: Brazil, 94; Israel, 100; Japan, 108; Poland, 112; Canada, 133; Australia, 133; South Africa (white population), 134; United States of America, 151; Italy, 159; Netherlands, 182; France, 204; England and Wales, 221; Scotland, 226. The rates are for the latest available year in each case.

Diseases of the heart (*B25 to B28*). The number of deaths classified to diseases of the heart in 1965 was 37,389 (21,843 males and 15,546 females). This class is the largest among causes of death, the rate having increased from 112 per 100,000 of mean population in 1911–15 to 330 in 1965. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates from heart diseases for various years from 1931 were as follows: 1931, 159 (males, 178; females, 142); 1941, 269 (males, 306; females, 231); 1951, 314 (males, 367; females, 259); 1961, 304 (males, 356; females, 250); and 1965, 330 (males, 383; females, 276). Deaths from heart diseases in 1965 represented 37 per cent of the total deaths.

Puerperal causes (*B40*). It was shown in Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes has fallen rapidly during recent years and in 1965 the rate was 0.3 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 74 deaths in 1965 correspond to a death rate of 1.32 per 100,000 females. The death rate may be expressed in other terms by stating that for every 3,012 babies born alive in 1965 one woman died from puerperal causes. The death rate per 1,000 live births from puerperal causes in various countries for the latest available year is as follows: Norway, 0.2; Australia, Canada, Denmark, France, Netherlands, New Zealand, Sweden, Switzerland, United Kingdom and United States, 0.3; Finland, 0.4; Italy, 0.9; and Japan, 1.0.

Causes of infant mortality. See paragraphs devoted to causes of infant deaths on pages 242–3.

Accidents, poisonings and violence (*BE47 to BE50*). Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including delayed effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is between two and three times as great for males as for females. The low level of the rates and proportions for the years 1941–45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July 1947 deaths of defence personnel from accidents, etc. have again been included.

ACCIDENTS, POISONINGS AND VIOLENCE: DEATH RATES(*a*), BY SEX AUSTRALIA, 1936 TO 1965

Period	Death rate from—												All violence, proportion per 10,000 deaths		
	Accidents(*b*)			Suicide			Homicide(*c*)			Total violence					
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1936–40 .	86	28	58	17	5	11	2	1	1	105	34	70	979	399	724
1941–45 .	67	26	46	11	4	8	1	1	1	79	31	55	730	348	558
1946–50 .	76	27	51	14	5	10	1	1	1	91	33	62	844	383	640
1951–55 .	82	31	57	15	5	10	2	1	1	99	37	68	964	453	740
1956–60 .	75	32	53	16	6	11	2	1	2	93	39	66	957	495	754
1961–65 .	72	32	52	19	9	14	2	1	1	93	43	68	954	550	777
1961 . .	72	30	52	17	7	12	2	1	1	91	38	65	966	514	769
1962 . .	71	33	52	19	9	14	2	1	2	92	43	68	952	559	780
1963 . .	69	29	49	21	11	16	2	1	1	92	41	66	944	529	762
1964 . .	73	34	53	19	10	15	2	1	2	94	45	70	939	561	772
1965 . .	74	33	54	19	11	15	1	1	1	95	46	70	970	584	800

(*a*) Number of deaths per 100,000 of mean population. (*b*) Includes 'open verdict'. (*c*) Includes late effects of injuries due to operations of war.

In 1965 the total number of deaths from *accidental causes* (*BE47*, *BE48*) was 6,120 (4,243 males and 1,877 females). Over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows: Motor vehicle traffic accidents, 3,083 (50.38 per cent); motor vehicle non-traffic accidents, 80 (1.31 per cent); other road vehicle accidents, 46 (0.75 per cent); railway accidents, 92 (1.50 per cent); water transport accidents, 86 (1.41 per cent); aircraft accidents, 18 (0.29 per cent); a total of 3,405 (55.64 per cent). Other important causes were accidental falls, 1,005 (16.42 per cent); accidental drowning, 378 (6.18 per cent); and accidents caused by fire and explosion of combustible material, 226 (3.69 per cent).

Deaths from *suicide* (*BE49*) in 1965 numbered 1,685 (males, 1,075; females, 610). Poisoning, other than by gases, was used in 759 cases (45.04 per cent of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows: firearms and explosives, 331 (19.64 per cent); poisoning by gases, 239 (14.78 per cent); hanging or strangulation, 173 (10.27 per cent); submersion (drowning), 66 (3.92 per cent); other and unspecified modes, 117 (6.35 per cent). Of the 1,075 males who committed suicide, 304 (28.28 per cent) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 405 cases (66.39 per cent). The following table shows the age of persons who committed suicide in 1965.

PERSONS WHO COMMITTED SUICIDE, BY AGE GROUP AND SEX AUSTRALIA, 1965

Age group (years)	Males	Females	Persons	Age group (years)	Males	Females	Persons
10–14 . .	5	. .	5	60–64 . .	69	49	118
15–19 . .	30	20	50	65–69 . .	69	40	109
20–24 . .	70	37	107	70–74 . .	48	27	75
25–29 . .	81	43	124	75–79 . .	29	15	44
30–34 . .	88	49	137	80–84 . .	11	4	15
35–39 . .	115	57	172	85 and over .	1	2	3
40–44 . .	124	66	190	Not stated .	4	1	5
45–49 . .	108	72	180				
50–54 . .	130	64	194				
55–59 . .	93	64	157	**Total deaths** .	**1,075**	**610**	**1,685**

Of the 170 deaths recorded in 1965 from *homicide and operations of war* (*BE50*) there were 162 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 57, assault by cutting and piercing instruments 36, and assault by other means 69. Deaths from injury resulting from the operations of war numbered 7 but all were deaths from late effects of such injuries.

Age at death and average issue of deceased married males and females

Demography, Bulletin No. 83, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1965. Deaths of married males in 1965 numbered 43,454, and those of married females, 35,745. The tables which follow deal, however, with only 42,903 males and 35,541 females, the information regarding issue in the remaining 755 cases being incomplete. The total number of children in the families of the 42,903 males was 123,258 and of the 35,541 females, 108,993. The average number of children is shown for various age groups in the following table.

AVERAGE ISSUE: DECEASED MARRIED(*a*) MALES AND FEMALES, BY AGE AT DEATH, AUSTRALIA, 1931 TO 1965

Age at death (years)	Average issue									
	Males					Females				
	1931	1941	1951	1961	1965	1931	1941	1951	1961	1965
Under 20 . . .	0.75	..	0.43	0.33	0.70	0.66	0.79	0.83	0.75	0.38
20–24 . . .	0.81	0.73	0.96	0.93	0.92	1.13	0.95	0.86	1.12	1.02
25–29 . . .	1.33	1.12	1.29	1.56	1.70	1.81	1.45	1.61	2.00	1.84
30–34 . . .	1.79	1.76	1.79	2.23	2.29	2.34	1.91	1.98	2.37	2.53
35–39 . . .	2.13	2.11	2.12	2.37	2.56	2.89	2.30	2.49	2.47	2.69
40–44 . . .	2.77	2.49	2.30	2.44	2.78	3.29	2.77	2.39	2.44	2.67
45–49 . . .	3.10	2.68	2.51	2.49	2.70	3.55	2.93	2.59	2.38	2.51
50–54 . . .	3.46	2.96	2.56	2.46	2.55	3.60	3.29	2.76	2.43	2.41
55–59 . . .	3.69	3.28	2.71	2.45	2.53	4.01	3.55	3.03	2.50	2.49
60–64 . . .	4.02	3.55	3.07	2.58	2.58	4.21	3.79	3.29	2.69	2.60
65–69 . . .	4.41	3.73	3.25	2.77	2.63	4.82	4.01	3.63	3.04	2.73
70–74 . . .	5.06	4.17	3.58	3.00	2.82	5.41	4.29	3.64	3.30	2.95
75–79 . . .	5.65	4.56	3.83	3.31	3.11	6.02	4.85	3.96	3.44	3.25
80–84 . . .	6.17	4.93	4.30	3.62	3.26	6.26	5.39	4.19	3.58	3.46
85–89 . . .	6.59	5.70	4.63	3.94	3.65	6.57	5.85	4.68	3.78	3.57
90–94 . . .	6.94	6.57	5.06	4.39	4.06	6.73	6.11	5.08	3.99	3.84
95–99 . . .	6.69	7.04	5.78	4.76	4.13	7.10	6.34	5.76	4.51	3.97
100 and over .	7.00	8.69	5.71	5.38	4.88	8.20	6.73	7.72	4.63	4.14
Age not stated .	5.00	..	8.00	..	..	5.00	..	5.50	5.00	1.50
All ages .	**4.44**	**3.91**	**3.39**	**2.98**	**2.87**	**4.72**	**4.22**	**3.68**	**3.22**	**3.07**

(*a*) Includes widowed or divorced.

Age at marriage of deceased males and females, and issue

The following table shows the average issue of males and females according to the age at marriage of the deceased parent.

AVERAGE ISSUE: DECEASED MALES AND FEMALES, BY AGE AT MARRIAGE AUSTRALIA, 1931 TO 1965

Age at marriage (years)(*a*)	Average issue									
	Males					Females				
	1931	1941	1951	1961	1965	1931	1941	1951	1961	1965
Under 15 . .	..	..	..	..	..	6.36	7.80	4.88	4.45	6.83
15–19 . . .	6.15	5.40	4.63	4.11	4.00	6.79	6.10	5.41	4.74	4.54
20–24 . . .	5.56	4.89	4.23	3.65	3.55	5.23	4.80	4.28	3.77	3.53
25–29 . . .	4.70	4.21	3.65	3.16	3.02	3.79	3.51	3.14	2.85	2.70
30–34 . . .	3.96	3.41	3.00	2.64	2.47	2.42	2.35	2.23	1.98	1.88
35–39 . . .	3.14	2.80	2.45	2.11	1.96	1.40	1.26	1.16	1.14	1.08
40–44 . . .	2.36	2.01	1.69	1.49	1.33	0.39	0.35	0.36	0.31	0.28
45–49 . . .	1.96	1.52	1.33	1.11	0.99	0.12	0.01	0.07	0.06	0.12
50–54 . . .	1.60	1.05	0.80	0.71	0.60	..	..	..	..	..
55–59 . . .	0.95	0.79	0.49	0.25	0.38	..	..	..	..	..
60–64 . . .	0.63	0.29	0.24	0.25	0.22	..	..	..	..	..
65 and over . .	0.18	0.01	0.29	0.24	0.16	..	..	..	..	..
Age not stated .	3.64	2.95	2.81	2.40	2.40	3.96	2.45	3.17	2.44	2.38
All ages .	**4.44**	**3.91**	**3.39**	**2.98**	**2.87**	**4.72**	**4.22**	**3.68**	**3.22**	**3.07**

(*a*) In cases where the deceased was married more than once this represents age at first marriage.

Vital statistics of external territories

The following table shows, for the year 1965, the number of marriages, births and deaths registered in the external territories under the control of Australia. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 83.

EXTERNAL TERRITORIES: VITAL STATISTICS, 1965

Territory	Marriages	Births	Deaths
Christmas Island(*a*)	4	65	6
Cocos (Keeling) Islands(*a*) . . .	..	..	..
Norfolk Island(*a*)	6	17	15
Papua(*b*)	97	450	31
Trust Territory of New Guinea(*b*) . .	136	561	80
Trust Territory of Nauru(*a*) . . .	30	245	42

(*a*) Total population. (*b*) Non-indigenous population only.

International vital statistics

In the following table vital statistics rates for selected countries are shown. Crude marriage, birth, and death rates represent the number of 'events' reported for the year stated per 1,000 of the population. Infant mortality rates are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nations *Demographic Yearbook*, 1965 (*see* explanation of true death rates, pages 233–4).

In many instances the rates shown in the following table are estimates and the results of sample surveys only. Reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1965 (*see* particularly Technical Notes on Statistical Tables and footnotes to the tables). The countries are arranged in the same order as in the table on pages 208–9 of the Population chapter.

VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE YEAR

(*Source:* United Nations *Demographic Yearbook*, 1965)

Country	Year	Rates(*a*)				Year	True death rates (*b*)	
		Marriage	Birth	Death	Infant mortality		Male	Female
Africa—								
South Africa—								
Asian population	1964	(*c*) 13.7	33.3	7.4	50.5	1950–52	17.9	18.3
Coloured population	1964	(*c*) 5.8	46.6	14.8	115.7	1950–52	22.3	20.9
White population	1965	(*c*) 9.1	22.6	9.0	(*d*) 33.6	1950–52	15.5	14.3
Congo, Democratic Republic of(*g*)	1955–57	(*e*)	(*f*)43	(*f*)20	(*f*) 104	1950–52	26.6	25.0
Morocco	1962	(*e*)	(*f*)46.1	(*f*)18.7	(*f*) 149	1960	20.2	
Upper Volta(*f*)	1960–61	(*e*)	50	32	182	1960–61	31.2	32.2
Southern Rhodesia(*f*)(*g*)	1961	. .	48.1	14.0	(*h*) 122	1961	20.0	
Ivory Coast(*f*)	1961	(*e*)	56.1	33.3	. .	. .	(*e*)	(*e*)
Zambia(*f*)(*g*)	1962–63	(*e*)	51.4	19.6	(*i*) 259	1962–63	25.0	
Guinea(*f*)	1955	(*e*)	62	40	216	1955	38.5	35.7
Senegal(*f*)	1960–61	(*e*)	43.3	16.7	92.9	. .	(*e*)	(*e*)
Dahomey(*f*)	1961	(*e*)	54.0	26.0	110.5	1961	26.8	
Central African Republic(*f*)(*g*)	1959–60	(*e*)	48	30	190	1959–60	30.3	27.8
North America—								
United States of America	1965	9.2	19.4	9.4	24.7	1964	14.9	13.6
Mexico	1965	7.0	45.3	9.5	(*d*) 64.5	1956	18.1	17.3
Canada	1965	7.3	21.4	7.5	(*d*) 24.7	1960–62	14.6	13.5
Haiti(*f*)	1959–61	(*e*)	45–50	20–25	(*e*)	1950	30.7	
Guatemala	1965	3.7	43.5	16.8	94.6	1949–51	22.8	23.0
El Salvador	1965	3.5	46.5	10.5	71.1	1951–61	22.4	21.1
Puerto Rico	1965	10.2	30.2	6.6	42.0	1959–61	14.9	13.9
Jamaica	1965	4.5	39.4	7.9	36.7	1960	15.9	14.9
Costa Rica	1964	5.8	40.8	8.8	86.4	1949–51	18.3	17.5
South America—								
Brazil	1959–61	(*e*)	*f* 40–43	*f* 11–13	(*e*)	1940–50	25.4	22.0
Argentine	1964	6.5	21.8	8.3	60.2	1959–61	15.8	14.5
Columbia	1959–61	(*d*) 5.0	*f* 43–46	*f* 14–17	(*d*) 83.3	1950–52	22.6	21.8
Peru(*j*)	1959–61	(*d*) 4.5	*f* 43–45	*f* 14–15	(*d*) 83.5	1961	20.0	
Venezuela(j)	1959–61	(*d*) 5.6	*f* 47–50	(*f*)9–12	(*c*) 47.9	. .	(*e*)	(*e*)
Chile	1964	7.2	32.8	11.2	114.2	1952	20.1	18.6
Bolivia	1959–61	(*k*) 3.2	*f* 43–45	*f* 21–23	(*f*)(*l*)86.0	1949–51	20.1	20.1
Asia—								
China (mainland)(*f*)	1957	(*e*)	34	11	(*e*)	. .	(*e*)	(*e*)
India	1963–64	(*e*)	(*f*)38.4	(*f*)12.9	*f m* 139	1951–60	23.9	24.7
Indonesia	1962	10.6	(*f*)43.0	*f* 21.4	(*f*) 125	. .	(*e*)	(*e*)
Pakistan(*f*)	1962	(*e*)	43–46	16–17	(*e*)	. .	(*e*)	(*e*)
Japan	1965	9.7	18.6	7.1	18.5	1964	14.8	13.7
Thailand	1956	(*c*) 2.2	(*f*)42	(*f*)20	(*c*) 37.9	1947–48	20.5	19.3
Korea, Republic of(*f*)	1955–60	(*e*)	44.7	16.0	(*e*)	1955–60	19.6	18.6
Burma	1955	(*e*)	(*f*)50	(*f*)35	*fn*195–300	1954	24.5	22.8
China, Republic of (Formosa)	1965	7.4	(*o*) 32.7	(*o*) 5.5	(*d*)(*o*) 23.9	1959–60	16.3	15.2
Malaya	1964	(*c*) 1.0	39.1	8.1	(*c*) 56.7	1956–58	17.9	17.2
Cambodia(*f*)	1958–59	(*e*)	41.4	19.7	127	1958–59	22.6	23.1
Hong Kong	1965	(*e*)	26.9	4.6	23.7	1961	15.7	14.2
Israel(*p*)	1964	7.8	22.4	6.2	23.9	1964	14.2	13.7
Europe—								
Germany, Federal Republic of	1965	8.3	17.9	11.2	23.8	1963–64	14.9	13.7
United Kingdom of Great Britain and Northern Ireland	1965	7.7	18.4	11.5	19.6	. .	(*e*)	(*e*)
England and Wales	1965	7.7	18.1	11.5	19.0	1961–63	14.7	13.5
Northern Ireland	1965	7.1	23.1	10.6	25.1	1962–64	14.7	13.7
Scotland	1965	7.8	19.4	12.1	23.1	1964	15.0	13.7
Italy	1965	7.7	19.2	10.0	35.6	1954–57	15.2	14.3
France	1965	7.1	17.6	11.1	22.0	1964	14.7	13.3
Spain	1965	7.2	21.3	8.7	37.2	1960	14.9	13.9

See footnotes on following page.

VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE YEAR—*continued*

Country	Year	Rates(*a*)				Year	True death rates (*b*)	
		Marriage	Birth	Death	Infant mortality		Male	Female
Europe—*continued*								
Poland	1965	6.4	17.3	7.4	41.7	1960–61	15.4	14.2
Yugoslavia	1965	8.9	20.9	8.7	71.5	1961–62	16.0	15.2
Romania	1965	8.6	14.6	8.6	44.1	1963	15.3	14.2
Czechoslovakia	1965	7.9	(*q*) 16.4	(*q*) 10.0	(*q*) 25.3	1963	14.8	13.6
Netherlands	1965	8.8	19.9	8.0	14.4	1956–60	14.0	13.4
Hungary	1965	8.8	13.1	10.7	38.8	1959–60	15.3	14.4
Belgium	1965	7.0	16.4	12.1	24.1	1959–63	14.8	13.6
Portugal	1965	8.2	22.8	10.3	64.9	1959–62	16.5	15.1
Bulgaria	1965	8.1	15.4	8.0	31.5	1960–62	14.7	14.0
Sweden	1965	7.8	15.9	10.1	12.4	1962	14.0	13.3
Austria	1965	7.8	17.9	13	28.8	1959–61	15.2	13.8
Switzerland	1965	7.6	18.7	9.3	(*d*) 19	1959–61	14.4	13.4
Denmark	1965	8.5	18.0	10.1	(*d*) 18.7	1962–63	14.2	13.4
Finland	1965	7.8	17.0	9.7	17.4	1956–60	15.4	14.0
Norway	1965	6.8	17.5	9.1	(*d*) 16.8	1956–60	14.0	13.2
Ireland	1965	5.8	22.2	11.5	25.3	1960–62	14.7	13.9
Oceania—								
Australia	1966	8.3	19.3	9.0	18.2	1960–62	14.7	13.5
New Zealand	1965	8.2	22.8	8.7	19.5	1960–62	14.6	13.6
U.S.S.R.—								
Union of Soviet Socialist Republics	1965	(*d*) 8.5	18.5	7.3	28	1962–63	15.4	13.7

(*a*) Crude marriage, birth and death rates, i.e. number of marriages, births and deaths per 1,000 of population. Infant mortality—number of deaths of children under one year of age per 1,000 live births. (*b*) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (*see* explanation on pp. 233-4.) (*c*) 1963. (*d*) 1964. (*e*) Not available. (*f*) Estimated. (*g*) African population only. (*h*) 1954. (*i*) 1950. (*j*) Excluding Indian jungle population. (*k*) 1965. (*l*) 1957. (*m*) 1951-1961. (*n*) 1952. (*o*) Excludes live born infants dying before registration of birth. (*p*) Jewish population. (*q*) Includes some premature infants dying within 24 hours of birth.

CHAPTER 10

HOUSING AND BUILDING

On pages 257–64 of this chapter details are given of the *characteristics of dwellings as obtained from censuses*, pages 264–76 contain a *summary of building activities*, pages 276–88 outline *government activities in the field of housing*, and pages 288–95 relate to *financial arrangements associated with the erection or purchase of homes.*

Further information on dwellings obtained from censuses is available in the detailed tables of the 1961 census and earlier censuses and in the mimeographed statements of the 1966 census (*see* the chapter Miscellaneous of this Year Book*).

More detailed information on building activity is contained in the annual bulletin *Building and Construction* and the *Quarterly Bulletin of Building Statistics*, and current information is obtainable also in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the mimeographed statements *Building Statistics: Number of New Houses and Flats* (quarterly), and *Building Approvals* (monthly). Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statisticians.

Commonwealth Government activities relate in the main to the provision of moneys to State Governments under Commonwealth-State Housing Agreements, to the assistance of ex-service personnel in the erection and purchase of homes, to assistance to young married couples under the Home Savings Grant Act, to the operation of the Housing Loans Insurance Corporation, and to the provision of homes in the Territories. Further details of activities of the Commonwealth and State Housing Authorities are shown in the reports issued by these authorities.

Census dwellings

At each census of the population, in addition to the questions relating to personal particulars, there have been a number of questions relating to dwellings. A 'dwelling' is defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building, and includes, *in addition to houses and flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. All statistics in this section are exclusive of particulars of dwellings occupied solely by full-blood Aborigines.†

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1911 to 1961. Occupied dwellings are classified into 'private' and 'other than private' dwellings (*see* page 259 for definitions of 'private' and 'other than private' dwellings). Unoccupied dwellings include dwellings whose occupants are temporarily absent, holiday homes, and other temporarily vacant dwellings (*see* page 264 for full explanation of the term 'unoccupied').

DWELLINGS: AUSTRALIA, CENSUSES, 1911 TO 1961

Census	Occupied			Unoccupied
	Private	Other than private	Total	
1911 . . .	894,389	29,070	923,459	33,473
1921 . . .	1,107,010	46,275	1,153,285	51,163
1933 . . .	1,509,671	37,705	1,547,376	68,772
1947 . . .	1,873,623	34,272	1,907,895	47,041
1954 . . .	2,343,421	36,932	2,380,353	112,594
1961 . . .	2,781,945	35,325	2,817,270	194,114

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* *See also* Appendix to this Year Book. † *See* Appendix for results of *Constitution Alteration* (*Aboriginals*) 1967 Referendum.

The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the census of 30 June 1961. (For definitions of 'urban' and 'rural' *see* page 195 of Year Book No. 52.)

DWELLINGS, BY DIVISION OF STATE: AUSTRALIA, CENSUS, 30 JUNE 1961

Division	Occupied				Unoccupied	
	Private	Other than private	Total		Number	Proportion of total
			Number	Proportion of total		
				Per cent		Per cent
Urban—						
Metropolitan	1,607,392	18,304	1,625,696	57.70	59,096	30.44
Other	706,535	9,208	715,743	25.41	58,577	30.18
Rural	468,018	7,813	475,831	16.89	76,441	39.38
Total	**2,781,945**	**35,325**	**2,817,270**	**100.00**	**194,114**	**100.00**

The total numbers of occupied and unoccupied dwellings in each State and Territory at the censuses of 1954 and 1961 were as follows.

DWELLINGS: STATES AND TERRITORIES, CENSUSES 1954 AND 1961

State or Territory	Census 30 June 1954		Census 30 June 1961	
	Occupied	Unoccupied	Occupied	Unoccupied
New South Wales	912,877	42,831	1,061,609	72,432
Victoria	660,690	27,491	790,529	47,389
Queensland	339,328	21,473	398,233	33,969
South Australia	215,301	8,524	261,908	17,061
Western Australia	162,823	6,614	194,317	13,705
Tasmania	78,789	5,288	91,258	8,582
Northern Territory	3,427	47	5,479	179
Australian Capital Territory	7,118	326	13,937	797
Australia	**2,380,353**	**112,594**	**2,817,270**	**194,114**

Class of dwelling

The following table shows the numbers of the various classes of occupied dwellings in the metropolitan urban, other urban, and rural areas of Australia at the censuses of 1954 and 1961. The boundaries of the metropolitan urban and other divisions of State differ from census to census, and consequently accurate comparison cannot be made between figures for corresponding divisions (*see* page 195 of Year Book No. 52).

Private dwellings are classified into the following four categories:

Private house—includes houses, sheds, huts, garages, etc., used for dwelling purposes, and shared private houses for which only one householder's schedule was received;

Share of private house—portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received;

Flat—part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

Other private dwelling—includes private dwellings such as rooms, apartments, etc., which are parts of buildings but are not self-contained units.

Other than private dwellings include hotels; motels; boarding houses, lodging houses and hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; police and fire stations; clubs; staff barracks and quarters, etc.

OCCUPIED DWELLINGS, BY CLASS OF DWELLING AND DIVISION OF STATE: AUSTRALIA, CENSUSES, 1954 AND 1961

Class of occupied dwelling	Census, 30 June 1954				Census, 30 June 1961				Increase 1954–61
	Urban(*a*)		Rural (*a*)	Total, Australia	Urban(*a*)		Rural (*a*)	Total, Australia	
	Metropolitan	Other			Metropolitan	Other			
Private house(*b*)—									
House	1,067,674	506,128	433,069	2,006,871	1,324,627	630,072	438,470	2,393,169	386,298
Shed, hut, etc. . .	14.259	12,276	22,613	49,148	10,740	11,338	19,919	41,997	−7,151
Total . . .	1,081,933	518,404	455,682	2,056,019	1,335,367	641,410	458,389	2,435,166	379,147
Share of private house(*c*) .	77,344	22,747	7,125	107,216	59,727	15,248	4,575	79,550	−27,666
Flat(*d*)	104,603	20,784	2,033	127,420	169,934	43,134	4,518	217,586	90,166
Other	45,308	6,744	714	52,766	42,364	6,743	536	49,643	−3,123
Total private dwellings .	*1,309,188*	*568,679*	*465,554*	*2,343,421*	*1,607,392*	*706,535*	*468,018*	*2,781,945*	*438,524*
Caretaker's quarters . .	998	264	194	1,456	(*e*)	(*e*)	(*e*)	(*e*)	−1,456
Licensed hotel . . .	1,720	2,457	2,015	6 192	1,759	2,447	1,877	6,083	−109
Motel . . .	14,110	4,120	1,041	19.271	61	301	137	499	−280
Boarding house, etc. .					13,572	4,094	826	18,492	
Educational institution(*f*) .	523	488	251	1,262	308	275	102	685	−577
Religious institution (non-educational)(*f*) . .	142	31	24	197	559	422	201	1,182	985
Hospital	559	517	353	1,429	638	488	318	1,444	15
Charitable institution (other than hospital) . . .	299	107	104	510	317	117	78	512	2
Other	852	1,091	4,672	6,615	1,090	1,064	4,274	6,428	−187
Total dwellings other than private . . .	*19,203*	*9,075*	*8,654*	*36,932*	*18,304*	*9,208*	*7,813*	*35,325*	*−1,607*
Total occupied dwellings .	1,328,391	577,754	474,208	2,380,353	1,625,696	715,743	475,831	2,817,270	436,917
Total occupied dwellings per square mile . .	592.77	123.32	0.16	0.80	661.12	173.77	0.16	0.95	0.15

(*a*) *See* text on page 258 regarding comparability as between censuses. (*b*) Includes shared private houses for which only one householder's schedule was received. (*c*) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (*d*) Prior to 1961 single self-contained dwellings attached to, or situated above, offices, shops, etc., were classified as private houses irrespective of the description stated in the householder's schedule. In 1961 such dwellings, if described as self-contained flats, were classified as flats. (*e*) Included with private dwellings. (*f*) Certain institutions previously classified as 'Educational' were in 1961 classified as 'Religious'.

Minus sign (−) denotes decrease.

Population according to class of dwelling, etc.

The following table shows the number of the various classes of occupied dwellings at the censuses of 1954 and 1961, together with the number of inmates therein.

OCCUPIED DWELLINGS AND INMATES, BY CLASS OF DWELLING: AUSTRALIA CENSUSES, 1954 AND 1961

	Census, 30 June 1954			Census, 30 June 1961		
	Number of dwellings	Inmates		Number of dwellings	Inmates	
		Number	Proportion of total		Number	Proportion of total
			per cent			per cent
Private house(*a*)—						
House	2,006,871	7,448,978	82.89	2,393,169	8,881,128	84.51
Shed, hut, etc.	49,148	134,187	1.49	41,997	116,458	1.11
Total	2,056,019	7,583,165	84.38	2,435,166	8,997,586	85.62
Share of private house(*b*)	107,216	290,579	3.23	79,550	224,066	2.13
Flat(*c*)	127,420	329,265	3.67	217,586	552,596	5.26
Other	52,766	111,353	1.24	49,643	96,246	0.92
Total, private dwellings(d)	*2,343,421*	*8,314,362*	*92.52*	*2,781,945*	*9,870,494*	*93.93*
Dwellings other than private(d)	*36,932*	*618,743*	*6.89*	*35,325*	*596,412*	*5.68*
Total occupied dwellings	**2,380,353**	**8,933,105**	**99.41**	**2,817,270**	**10,466,906**	**99.61**
Campers out	..	30,056	0.33	..	15,994	0.15
Migratory(*e*)	..	23,369	0.26	..	25,286	0.24
Total population	..	8,986,530	100.00	..	10,508,186	100.00

(*a*) Includes shared private houses for which only one householder's schedule was received. (*b*) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (*c*) *See* footnote (*d*) to table on page 259. (*d*) *See* footnote (*e*) to table on page 259. (*e*) Shipping, railway and air travellers.

Occupied private dwellings

The tables on pages 260–3 show occupied private dwellings classified according to material of outer walls; number of rooms; number of inmates; nature of occupancy; date of building; and facilities. Previous Year Books contain additional detail concerning these classifications.

OCCUPIED PRIVATE DWELLINGS, BY MATERIAL OF OUTER WALLS AND DIVISION OF STATE: AUSTRALIA, CENSUSES, 1954 AND 1961

Material of outer walls	Census, 30 June 1954				Census, 30 June 1961				Increase, 1954–61
	Urban(*a*)		Rural (*a*)	Total Australia	Urban(*a*)		Rural (*a*)	Total Australia	
	Metropolitan	Other			Metropolitan	Other			
Brick	674,165	86,254	25,089	785,508	807,311	113,392	32,291	952,994	167,486
Stone	35,907	18,049	33,604	87,560	32,828	19,919	30,325	83,072	−4,488
Concrete	24,299	13,497	13,639	51,435	40,779	19,111	15,455	75,345	23,910
Wood	422,010	341,145	276,584	1,039,739	507,775	386,555	258,257	1,152,587	112,848
Iron, tin	7,387	19,652	31,177	58,216	4,556	17,235	24,870	46,661	−11,555
Fibro-cement	140,542	84,835	71,176	296,553	208,271	146,003	97,996	452,270	155,717
Calico, canvas, hessian	426	1,843	5,446	7,715	105	585	1,918	2,608	−5,107
Other	3,644	2,686	7,750	14,080	4,328	2,958	5,841	13,127	−953
Not stated	808	718	1,089	2,615	1,439	777	1,065	3,281	666
Total	**1,309,188**	**568,679**	**465,554**	**2,343,421**	**1,607,392**	**706,535**	**468,018**	**2,781,945**	**438,524**

(*a*) *See* text on page 258 regarding comparability as between censuses.

Minus sign (−) denotes decrease.

The following table gives particulars of occupied private dwellings by number of rooms. For a dissection of these figures into metropolitan urban, other urban, and rural areas *see* page 359 of Year Book No. 50.

OCCUPIED PRIVATE DWELLINGS, BY NUMBER OF ROOMS AND CLASS OF DWELLING: AUSTRALIA, CENSUSES, 1954 AND 1961

Number of rooms(*a*) per dwelling	Census, 30 June 1954					Census, 30 June 1961				
	Private house (*b*)	Share of private house (*c*)	Flat (*d*)	Other	Total private dwellings	Private house (*b*)	Share of private house (*c*)	Flat (*d*)	Other	Total private dwellings
1	24,052	12,129	769	16,336	53,286	17,303	6,941	2,282	13,306	39,832
2	45,117	23,761	7,333	18,675	94,886	28,607	17,606	20,635	19,644	86,492
3	87,137	25,716	27,270	9,955	150,078	70.945	21.280	53,585	9,732	155,542
4	380,138	19,284	49,548	4,250	453,220	387,737	16,524	77,531	3,536	485,328
5	692,044	12,728	27,701	1,520	733,993	903,227	11,906	39,914	1,224	956,271
6	534,420	7,663	10,752	687	553,522	656,348	2,168	15,723	245	674,484
7	181,312	2,788	2,525	218	186,843	231,841	609	4,471	97	237,018
8	64,092	1,130	806	100	66,128	80,911	230	1,674	45	82,860
9	22,430	341	244	47	23,062	28,070	70	572	28	28,740
10 and over .	20,808	163	98	18	21,087	24,196	97	160	38	24,491
Not stated .	4,469	1,513	374	960	7,316	5,981	2,119	1,039	1,748	10,887
Total private dwellings .	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945
Average number of rooms(*a*) per private dwelling	5.26	3.38	4.14	2.22	5.04	5.39	3.26	3.97	2.20	5.16

(*a*) Includes kitchen and permanently enclosed sleep-out but does not include bathroom, pantry, laundry or storehouse. (*b*) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (*c*) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (*d*) *See* footnote (*d*) to table on page 259.

The following table gives particulars of occupied private dwellings by number of inmates. For a dissection of these figures into metropolitan urban, other urban, and rural areas *see* page 361 of Year Book No. 50.

OCCUPIED PRIVATE DWELLINGS BY NUMBER OF INMATES AND CLASS OF DWELLING: AUSTRALIA, CENSUSES, 1954 AND 1961

Number of inmates per dwelling	Census, 30 June 1954					Census, 30 June 1961				
	Private house (*a*)	Share of private house (*b*)	Flat (*c*)	Other	Total private dwellings	Private house (*a*)	Share of private house (*b*)	Flat (*c*)	Other	Total private dwellings
1	147,308	22,082	22,507	21,191	213,088	198,150	17,215	46,890	23,105	285,360
2	444,179	35,626	49,303	16,678	545.786	537,599	23,572	82,194	15,128	658,493
3	435,679	22,920	29,351	7,904	495,854	465,895	16,176	43,051	6,267	531,389
4	446,687	14,258	16,468	4,185	481,598	512,229	11,371	26,638	3,053	553,291
5	291,706	6,673	6,335	1,578	306,292	356,874	5,801	11,571	1,264	375,510
6	154,691	3,171	2,263	654	160,779	196,328	2,940	4,476	499	204,243
7	72,955	1,429	796	294	75,474	91,405	1,367	1,779	180	94,731
8	35,243	704	256	160	36,363	44,096	765	683	91	45,635
9	14,268	207	92	67	14.634	17,279	204	173	30	17,686
10 and over .	13,303	146	49	55	13,553	15,311	139	131	26	15,607
Total private dwellings .	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945
Total inmates	7,583,165	290,579	329,265	111,353	8,314,362	8,997,586	224,066	552,596	96,246	9,870,494
Average number of inmates per private dwelling	3.69	2.71	2.58	2.11	3.55	3.69	2.82	2.54	1.94	3.55

(*a*) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (*b*) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (*c*) *See* footnote (*d*) to table on page 259.

The following table gives particulars of the nature of occupancy of occupied private dwellings. For a dissection of these figures into metropolitan urban, other urban and rural areas *see* page 363 of Year Book No. 50.

OCCUPIED PRIVATE DWELLINGS, BY NATURE OF OCCUPANCY AND CLASS OF DWELLING: AUSTRALIA, CENSUS, 1954 AND 1961

Nature of occupancy	Census, 30 June 1954					Census, 30 June 1961				
	Private house (*a*)	Share of private house (*b*)	Flat (*c*)	Other	Total private dwellings	Private house (*a*)	Share of private house (*b*)	Flat (*c*)	Other	Total private dwellings
Owner . .	1,074,696	28,772	15,974	2,372	1,121,814	1,260,221	22,572	35,998	2,817	1,321,608
Purchaser by instalments .	343,625	7,099	1,816	553	353,093	607,444	8,175	7,529	866	624,014
Tenant (Governmental housing)(*d*) .	91,968	560	4.935	1,913	99.376	102,087	488	13.925	579	117,079
Tenant . .	481.813	67,964	103,142	46,935	699.854	400,489	45.943	155,110	44,195	645,737
Caretaker . .	25.307	772	888	460	27,427	25,982	659	2,813	468	29,922
Other methods of occupancy .	27,285	869	435	241	28,830	27,327	675	1,523	244	29,769
Not stated . .	11,325	1,180	230	292	13,027	11,616	1,038	688	474	13,816
Total private dwellings .	**2.056,019**	**107,216**	**127,420**	**52,766**	**2,343,421**	**2,435,166**	**79,550**	**217,586**	**49,643**	**2,781,945**

(*a*) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (*b*) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (*c*) *See* footnote (*d*) to table on page 259. (*d*) At the 1954 Census, figures were compiled from the answers furnished in response to the instruction on the householder's schedule 'Tenant paying rent to a Government Authority to write 'Tenant (G)''. At the 1961 Census, householders were instructed on the schedule to write 'Tenant (G)' if they paid rent to the Governmental Housing Authority in their State or Territory.

The numbers of occupied private dwellings in Australia at the census of 30 June 1961, classified according to date of building, are shown below. This information was derived from replies of occupants of dwellings at 30 June 1961. For a number of reasons, the figures shown on the first line of the table do not agree with the number of dwellings by class recorded at the census of 30 June 1954, e.g. demolitions, conversion from one class of dwelling to another and errors of memory regarding date of building. Also, the figures are not precisely comparable with 1954 data because of changes in classification of dwellings adopted at the 1961 census, as indicated in footnotes (*d*) and (*e*) to the table on page 259.

OCCUPIED PRIVATE DWELLINGS, BY DATE OF BUILDING AND CLASS OF DWELLING AND DIVISION OF STATE: AUSTRALIA, CENSUS, 30 JUNE 1961

Date of building	Class of dwelling				Division			Total Australia
					Urban		Rural	
	Private house (*a*)	Share of private house	Flat	Other	Metropolitan	Other		
Before 1 July 1954 . .	*1,861,262*	*68,823*	*168,615*	*44,358*	*1,231,462*	*537,953*	*373,643*	*2,143,058*
After 30 June 1954—								
1954 (July–Dec.) .	30,398	397	1,121	94	19,116	8,375	4,519	32,010
1955 . . .	80.293	975	3,375	194	49,571	22,374	12,892	84,837
1956 . . .	73.095	999	3,937	213	46,215	20.398	11,631	78.244
1957 . . .	68,340	939	3,596	351	43.353	18,953	10,920	73,226
1958 . . .	78,573	1,143	5,603	381	51,970	22,203	11,527	85,700
1959 . . .	81,110	1,220	7,657	366	54,747	24,002	11,604	90,353
1960 . . .	82,968	1,231	11,117	234	57,188	25,705	12,657	95,550
1961 (Jan.–June) .	30,618	367	4,124	130	19,943	9,466	5,830	35,239
Not stated(*b*) . .	18,131	730	2,841	491	12,484	6,085	3,624	22,193
Total, after 30 June 1954 . . .	*543,526*	*8,001*	*43,371*	*2,454*	*354,587*	*157,561*	*85,204*	*597,352*
Other not stated . .	30,378	2,726	5,600	2,831	21,343	11,021	9,171	41,535
Grand total . .	2,435,166	79,550	217,586	49,643	1,607,392	706,535	468,018	2,731,945

(*a*) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (*b*) After 30 June 1954 but year not stated.

At the 1961 census a question was asked regarding the facilities gas, electricity, and television. Similar information was not compiled for the 1954 census, but a summary of information obtained at the 1947 census was published on page 571 of Year Book No. 38.

OCCUPIED PRIVATE DWELLINGS, BY FACILITIES AND CLASS OF DWELLING AND DIVISION OF STATE: AUSTRALIA, CENSUS, 30 JUNE 1961

Facilities	Class of dwelling				Division			Total, Australia
					Urban		Rural	
	Private house (*a*)	Share of private house	Flat	Other	Metropolitan	Other		
Gas or electricity—								
With gas only . . .	5,386	105	171	103	1,578	614	3,573	5,765
With electricity only .	1,322,300	28,580	63,378	9,565	546,588	517,038	360,197	1,423,823
With gas and electricity .	1,008,763	49,769	153,231	39,428	1,052,980	177,974	20,237	1,251,191
Without gas or electricity .	87,839	773	277	163	3,239	8,665	77,148	89,052
Not stated . . .	10,878	323	529	384	3,007	2,244	6,863	12,114
Total	2,435,166	79.550	217,586	49,643	1,607,392	706.535	468,018	2,781,945
With television set(*b*) . .	1,139,578	30.126	97.226	11,732	1.038.837	168.875	70,950	1,278.662

(*a*) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (*b*) So stated in census schedules.

Tenanted private dwellings—weekly rent

Information tabulated from census results concerning rents was restricted to the actual rent paid per week by tenants for unfurnished private dwellings. Particulars of rents shown in the following tables are therefore on an *unfurnished* basis. Dwellings shown as rent 'Not stated' include those whose rents were shown on householders' schedules on a *furnished* basis, and those whose rents were not applicable (e.g. for shop and dwelling combined). In this section information on 'tenanted private dwellings' *excludes particulars of dwellings occupied by 'Tenants (Governmental Housing)' in each State*, i.e. those householders who at the 1954 Census furnished answers in response to the instruction on the census householder's schedule 'Tenant paying rent to a Government Authority to write 'Tenant (G)'' and those householders who at the 1961 Census furnished answers in response to the instruction on the census householder's schedule 'Tenant paying rent to the Governmental Housing Authority in their State to write 'Tenant (G)' '. *For the Australian Capital Territory and the Northern Territory particulars of all tenanted private dwellings are included.*

TENANTED PRIVATE DWELLINGS, BY WEEKLY RENT (UNFURNISHED) AND CLASS OF DWELLING: AUSTRALIA, CENSUSES, 1954 AND 1961

Weekly rent (unfurnished)	Census, 30 June 1954(*a*)					Census, 30 June 1961(*a*)				
	Private house (*b*)	Share of private house (*c*)	Flat (*d*)	Other	Total tenanted private dwellings	Private house (*b*)	Share of private house (*c*)	Flat (*d*)	Other	Total tenanted private dwellings
Under $2 . .	71,092	4,960	1,191	1,573	78 816	24,925	665	1,043	426	27,059
$2 and under $3	116,836	9,155	6,559	3,019	135.569	41,731	1,649	2,798	860	47.038
$3 " " $4	94,619	8,971	17,187	2,955	123,732	41,920	1,942	5,424	1,268	50,554
$4 " " $5	50,869	5,827	18,180	1,815	76,691	44,659	2,662	9,482	1,431	58,234
$5 " " $6	22,487	2,963	11,874	1,061	38,385	32,137	2,011	10,598	1,068	45,814
$6 " " $7	14,770	1,830	6,980	686	24,266	31.174	2,776	10,239	1,158	45,347
$7 " " $8	6.584	685	3,561	324	11,154	18,189	1,787	7,147	810	27,933
$8 " " $9	3,751	481	2,370	182	6,784	15,590	1,824	6,669	718	24,801
$9 " " $10	1,279	137	1,352	70	2,838	7,469	915	4,205	433	13.022
$10 and over .	3,636	316	3.523	177	7,652	43,482	4.050	38,306	1,596	87,434
Not stated(*e*) .	100,253	32,756	30,607	35,087	198,703	106,808	25,791	60,608	34,439	227,646
Total tenanted private dwellings .	**486,176**	**68,081**	**103,384**	**46,949**	**704,590**	**408,084**	**46,072**	**156,519**	**44,207**	**654,882**
Average weekly rent (unfurnished) per private dwelling . .	$ 3 22	$ 3.42	$ 5.05	$ 3 62	$ 3.50	$ 5.77	$ 6.62	$ 9.47	$ 6.25	$ 6.65

(*a*) These figures exclude dwellings occupied by 'Tenants (Governmental housing)' except those in the Northern Territory and the Australian Capital Territory. (*b*) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (*c*) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (*d*) *See* footnote (*d*) to table on page 259. (*e*) Includes tenanted dwellings which were rent-free, those rented on a furnished basis, and those for which the rents were not applicable (e.g. for shop and dwelling combined).

For similar particulars to the above for metropolitan urban, other urban, and rural areas and for further detail *see* Year Book No. 50, pages 365–7.

Unoccupied dwellings

The following table classifies unoccupied dwellings according to the reasons given by census collectors for the dwellings being unoccupied at the census date. Unoccupied dwellings include vacant dwellings available for sale or renting; dwellings such as 'week-ender', 'holiday home', 'second home', 'seasonal workers' quarters', which were not occupied on the night of the census; dwellings normally occupied, but whose usual occupants were temporarily absent on the night of the census; newly completed dwellings whose owners or tenants had not entered into occupation on the night of the census; dwellings described as 'to be demolished', 'condemned', 'deceased estate', 'exhibition home', etc.; and buildings constructed as dwellings, but used for non-dwelling purposes on the night of the census. The total number of unoccupied dwellings shown for any area must not, therefore, be read as representing the number of vacant houses and flats available for sale or renting.

UNOCCUPIED DWELLINGS, BY REASON FOR BEING UNOCCUPIED AUSTRALIA, CENSUS, 30 JUNE 1961

Reason for being unoccupied	Urban		Rural	Total, Australia	
	Metropolitan	Other		Number	Per cent
For sale or for renting	16,159	10,920	7,189	34,268	17.65
Holiday home, week-ender, seasonal workers' quarters	5,814	20,975	36,567	63,356	32.64
Occupants temporarily absent	22,896	16,196	14,984	54,076	27.86
To be demolished, condemned	1,828	912	1,800	4,540	2.34
Other and not stated	12,399	9,574	15,901	37,874	19.51
Total	**59,096**	**58,577**	**76,441**	**194,114**	**100.00**

Building

Statistics of building approved

Statistics of building approvals have been compiled from (*a*) permits issued by local government authorities in the areas subject to building control by these authorities, and (*b*) contracts let or work commenced and day labour projects authorised by governmental authorities. *They relate only to approvals for buildings as distinct from the construction of roads, railways, bridges, earthworks, water storage, etc.* Values shown represent the estimated cost when completed (excluding cost of land) of new buildings and alterations and additions to existing buildings. Additions of $10,000 and over are included with new buildings in all States except New South Wales, where they are included in 'alterations and additions'. These statistics are available from the year 1953–54.

Statistics of building commenced, completed and under construction

These relate to building by private contractors, government authorities and owner-builders. The following outlines the scope of the statistics: (*a*) *only the erection of new buildings as distinct from the construction of roads, railways, bridges, earthworks, water storages, etc., is covered;* (*b*) major new additions to existing buildings are included as new buildings (for New South Wales, major alterations also are included as new building); (*c*) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining details of this work; (*d*) temporary dwellings, sheds, huts, etc., are excluded; (*e*) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached): figures for flats include 'home units'; (*f*) imported prefabricated houses are included; (*g*) details obtained from government authorities and building contractors refer to all areas, whereas details for owner-builders cover only areas subject to building control by local government authorities.

The following definitions of terms used in this section are necessary for interpretation of the data presented.

Private or government ownership. A building is classified as 'private' or 'government' according to ownership at date of commencement. Thus 'government' includes buildings erected for Commonwealth and State Governments, semi-governmental and local government authorities, either by contractor or by day-labour, whether these buildings are for their own use or for rental or sale after completion. Houses erected *for particular persons* under government sponsored home building schemes or with government financial assistance are classified as 'private'.

Owner-built. An 'owner-built' house is one actually erected or being erected by the owner or under the owner's direction without the services of a contractor who is responsible for the whole job.

Contract-built. Includes the operations of all building contractors and government authorities which undertake the erection of new buildings.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

Completed. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

Under construction. A building is regarded as being under construction if it has been commenced but not completed, whether or not work on the building is actively proceeding.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

Values of work done. The values of work done during the period represent the estimated value of work actually carried out on buildings during the period. For any building the sum of these values obtained during its construction equals the value of the building on completion. Data relating to the value of work done on owner-built houses are not collected. However, the figures shown for the value of work done include a component relating to owner-built houses, calculated on the basis of the figures collected for the value of owner-built houses commenced, completed and under construction.

Type of building. Classification is according to the function a building is intended to serve. A building which is ancillary to other buildings or forms part of a group of related buildings is classified according to the function of the group as a whole.

Persons working. Figures relate to persons working on the jobs of contractors who undertake the erection of new buildings and of government authorities which erect new buildings on their own account. They include persons working on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and authorities. Contractors are asked to give details of all persons working on their jobs *on a specified day*, including working principals, men working as or for subcontractors and men temporarily laid off on account of weather. Because of the intermittent employment of various types of sub-contractors on any particular job, it is sometimes difficult for contractors and authorities to provide precise particulars of the number of sub-contractors and the number of employees of sub-contractors working on their jobs on the specified day. This factor may cause some estimation by persons completing returns and some degree of understatement in figures shown in tables. On the other hand, because of frequent movement between jobs of some types of tradesmen (such as electricians) who may work on several jobs on the one day, a small element of duplication may occur. The figures *exclude* persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

New houses approved, commenced, completed and under construction

The next table provides a summary for 1965–66 of the number of new houses approved, commenced, completed and under construction in each State and Territory. For a graph showing the number of new houses commenced, completed and under construction for the period 1956–57 to 1965–66, *see* plate 22, page 269.

NEW HOUSES: NUMBER, STATES AND TERRITORIES, 1965–66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved . .	26,597	20,461	11,902	9,157	7,429	2,428	576	2,027	80,577
Commenced . .	24,568	20,530	12,066	9,395	7,577	2,202	514	2,112	78,964
Completed . .	25,904	20,929	11,662	10,353	7,265	2,260	657	2,066	81,096
Under construction at end of year .	11,515	11,459	3,431	4,851	3,257	1,542	348	1,101	37,504

The following table shows the number of new houses approved in each State or Territory, according to private and government ownership, during the years 1961–62 to 1965–66.

NEW HOUSES APPROVED, BY OWNERSHIP NUMBER, STATES AND TERRITORIES, 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1961–62 . .	22,558	16,829	8,630	6,373	4,424	1,910	175	842	61,741
1962–63 . .	23,412	19,894	8,347	7,438	4,738	1,921	156	943	66,849
1963–64 . .	24,926	22,417	9,333	8.025	5,571	2,064	130	995	73,461
1964–65 . .	24,685	20,301	10,269	7,289	5,512	2.062	203	1,189	71,510
1965–66 . .	23,481	18,572	10,376	6,687	5,537	1,837	84	1,318	67,892
GOVERNMENT									
1961–62 . .	4,335	1,285	1,302	1,603	1,867	617	229	590	11,828
1962–63 . .	3,980	1,925	1,197	2,537	1,655	550	240	741	12,825
1963–64 . .	5,243	2,301	1,643	4,085	1,876	584	333	569	16,634
1964–65 . .	4,240	2,207	1,460	2,519	2,058	607	571	854	14,516
1965–66 . .	3,116	1,889	1,526	2,470	1,892	591	492	709	12,685
TOTAL									
1961–62 . .	26,893	18,114	9,932	7,976	6,291	2,527	404	1,432	73,569
1962–63 . .	27,392	21,819	9.544	9,975	6,393	2,471	396	1,684	79,674
1963–64 . .	30,169	24,718	10,976	12,110	7,447	2,648	463	1,564	90.095
1964–65 . .	28,925	22,508	11,729	9,808	7,570	2,669	774	2 043	86.026
1965–66 . .	26,597	20,461	11,902	9,157	7,429	2,428	576	2,027	80,577

The number of new houses commenced in each State and Territory by contractors and owner-builders during the years 1961–62 to 1965–66 is shown in the following table.

NEW HOUSES COMMENCED, CONTRACT- OR OWNER-BUILT: NUMBER, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
CONTRACT-BUILT(*a*)									
1961 62 . .	18,764	15,292	7,715	8,136	5,491	1,643	369	1,388	58,798
1962–63 . .	20,667	17,632	7,949	9,130	5,443	1.641	326	1,461	64,249
1963–64 . .	23,545	20,873	8,917	11,014	6,448	1,756	395	1,561	74,509
1964–65 . .	22,764	18,900	10 202	10,639	6,537	1,791	557	1,793	73,183
1965–66 . .	20,704	17,587	10,650	8,826	6,647	1,576	484	1,945	68,419
OWNER-BUILT									
1961–62 . .	6,594	3,247	1,451	593	825	832	58	202	13,802
1962–63 . .	4,478	3,179	1,078	480	779	801	42	131	10,968
1963–64 . .	4,412	2,775	1,264	550	872	794	35	92	10,794
1964–65 . .	3,860	2,867	1,455	581	930	755	48	117	10,613
1965–66 . .	3,864	2,943	1,416	569	930	626	30	167	10,545
TOTAL									
1961–62 . .	25,358	18,539	9,166	8,729	6,316	2,475	427	1,590	72,600
1962–63 . .	25,145	20,811	9,027	9 610	6,222	2,442	368	1,592	75,217
1963 64 . .	27,957	23,648	10,181	11,564	7,320	2,550	430	1,653	85,303
1964–65 . .	26,624	21,767	11,657	11,220	7,467	2,546	605	1,910	83 796
1965–66 . .	24,568	20,530	12,066	9,395	7,577	2,202	514	2,112	78,964

(*a*) Includes operations of government authorities.

The following table shows the number of new houses completed in each State and Territory by contractors and owner-builders during the years 1961–62 to 1965–66.

NEW HOUSES COMPLETED, CONTRACT- OR OWNER-BUILT: NUMBER, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
CONTRACT-BUILT(*a*)									
1961–62 . .	18,593	14,982	7,648	8,302	5,009	1,574	335	1,298	57,741
1962–63 . .	19,939	16,355	7,827	9,059	5,661	1,649	381	1,508	62,379
1963–64 . .	21,658	19,358	8,681	9,884	6,342	1,615	262	1,601	69,401
1964–65 . .	22,976	19,544	10,158	10,490	6,396	1,779	424	1,673	73,440
1965–66 . .	22,022	17,662	10,300	9,741	6,282	1,572	621	1,937	70,137
OWNER-BUILT									
1961–62 . .	7,818	3,987	1,492	834	1,073	823	59	217	16,303
1962–63 . .	5,652	3,973	1,192	587	932	855	51	175	13,417
1963–64 . .	4,296	3,441	1,331	604	934	896	48	163	11,713
1964–65 . .	3,788	3,277	1,388	560	1,049	800	49	133	11,044
1965–66 . .	3,882	3,267	1,362	612	983	688	36	129	10,959
TOTAL									
1961–62 . .	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044
1962–63 . .	25,591	20,328	9,019	9,646	6,593	2,504	432	1,683	75,796
1963–64 . .	25,954	22,799	10,012	10,488	7,276	2,511	310	1,764	81,114
1964–65 . .	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	84,484
1965–66 . .	25,904	20,929	11,662	10,353	7,265	2,260	657	2,066	81,096

(*a*) Includes operations of government authorities.

The number of new houses completed in each State and Territory during the years 1961–62 to 1965–66, according to private and government ownership, is shown in the following table.

NEW HOUSES COMPLETED, BY OWNERSHIP: NUMBER, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1961–62 . .	22,241	17,066	7,393	6,013	4,678	1,850	142	703	60,086
1962–63 . .	21,727	19,125	7,962	6,921	4,843	1,941	133	962	63,614
1963–64 . .	22,174	21,129	8,375	7,795	5,330	1,957	129	1,028	67,917
1964–65 . .	21,935	20,781	10,117	7,873	5,612	2,000	117	1,086	69,521
1965–66 . .	22,056	19,014	10,234	7,230	5,228	1,703	105	1,218	66,788
GOVERNMENT									
1961–62 . .	4,170	1,903	1,747	3,123	1,404	547	252	812	13,958
1962–63 . .	3,864	1,203	1,057	2,725	1,750	563	299	721	12,182
1963–64 . .	3,780	1,670	1,637	2,693	1,946	554	181	736	13,197
1964 65 . .	4,829	2,040	1,429	3,177	1,833	579	356	720	14,963
1965–66 . .	3,848	1,915	1,428	3,123	2,037	557	552	848	14,308
TOTAL									
1961–62 . .	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044
1962–63 . .	25,591	20,328	9,019	9,646	6,593	2,504	432	1,683	75,796
1963–64 . .	25,954	22,799	10,012	10,488	7,276	2,511	310	1,764	81,114
1964 65 . .	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	84,484
1965–66 . .	25,904	20,929	11,662	10,353	7,265	2,260	657	2,066	81,096

The following tables show the number of new houses completed in each State and Territory during 1965–66 and in Australia during the years 1961–62 to 1965–66, classified according to the material of their outer walls.

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER, STATES AND TERRITORIES, 1965-66

Material of outer walls	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Brick, brick veneer, concrete and stone	13,086	16,882	3,286	9,648	5,623	1,254	315	2,054	52,148
Wood (weatherboard, etc.) .	3,428	2,233	5,612	21	19	932	. .	2	12,247
Fibro-cement	9,272	1,678	2,541	680	1,556	62	228	10	16,027
Other	118	136	223	4	67	12	114	. .	674
Total	**25,904**	**20,929**	**11,662**	**10,353**	**7,265**	**2,260**	**657**	**2,066**	**81,096**

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER AUSTRALIA, 1961-62 TO 1965-66

Material of outer walls	1961–62	1962–63	1963–64	1964–65	1965–66
Brick, brick veneer, concrete and stone . .	34,990	40,194	47,754	52,285	52,148
Wood (weatherboard, etc.)	20,896	19,212	16,678	14,480	12,247
Fibro-cement	17,776	16,083	16,358	17,171	16,027
Other	382	307	324	548	674
Total	**74,044**	**75,796**	**81,114**	**84,484**	**81,096**

The number of new houses under construction at the end of each year 1961–62 to 1965–66 in each State and Territory is shown in the following table.

NEW HOUSES UNDER CONSTRUCTION: NUMBER, STATES AND TERRITORIES 1961-62 TO 1965-66

At end of year—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 . .	11,434	11,580	2,739	4,599	3,250	1,656	303	1,153	36,714
1962–63 . .	10,988	12,063	2,747	4,563	2,879	1,594	239	1,062	36,135
1963–64 . .	12,991	12,912	2,916	5,639	2,923	1,633	359	951	40,324
1964–65 . .	12,851	11,858	3,027	5,809	2,945	1,600	491	1,055	39,636
1965–66 . .	11,515	11,459	3,431	4,851	3,257	1,542	348	1,101	37,504

New flats

The figures in the foregoing tables do not include particulars of new flats. It should be noted: (*a*) that the figures following are additional to the numbers of houses shown in other tables, (*b*) that each flat is counted as a separate unit, and the numbers shown therefore relate to individual flats, (*c*) that new flats only are included, i.e. conversions of old buildings into flats are omitted, and (*d*) 'home units' are included as flats. For a graph showing the number of new flats commenced, completed and under construction for the period 1956–57 to 1965–66 *see* plate 23, page 270.

Approved, commenced, completed and under construction

The summary following shows the number of new flats approved, commenced, completed and under construction for the year 1965–66.

NEW HOUSES: AUSTRALIA

1956-57 TO 1965-66

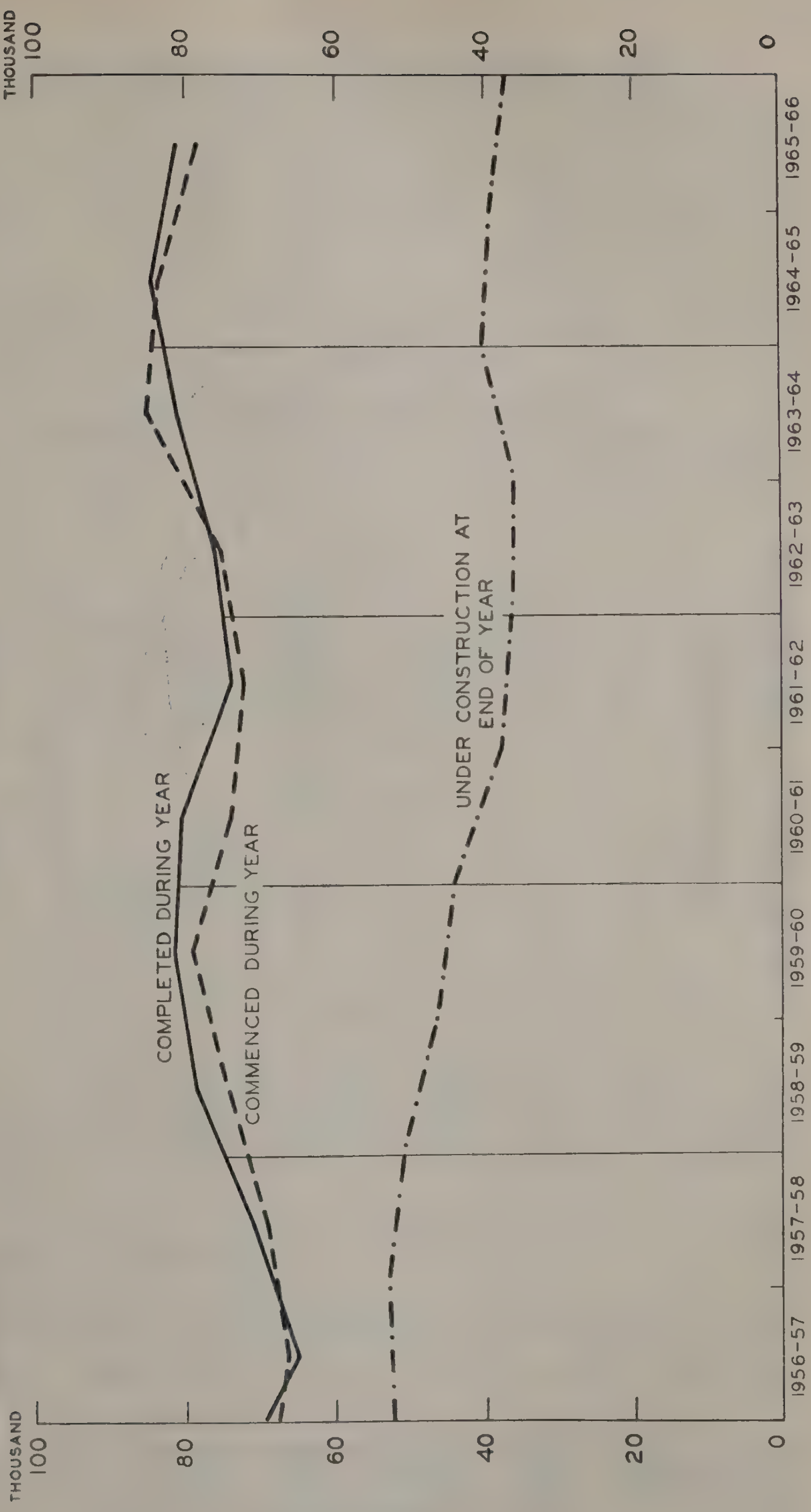


PLATE 22

NEW FLATS: AUSTRALIA

1956-57 TO 1965-66

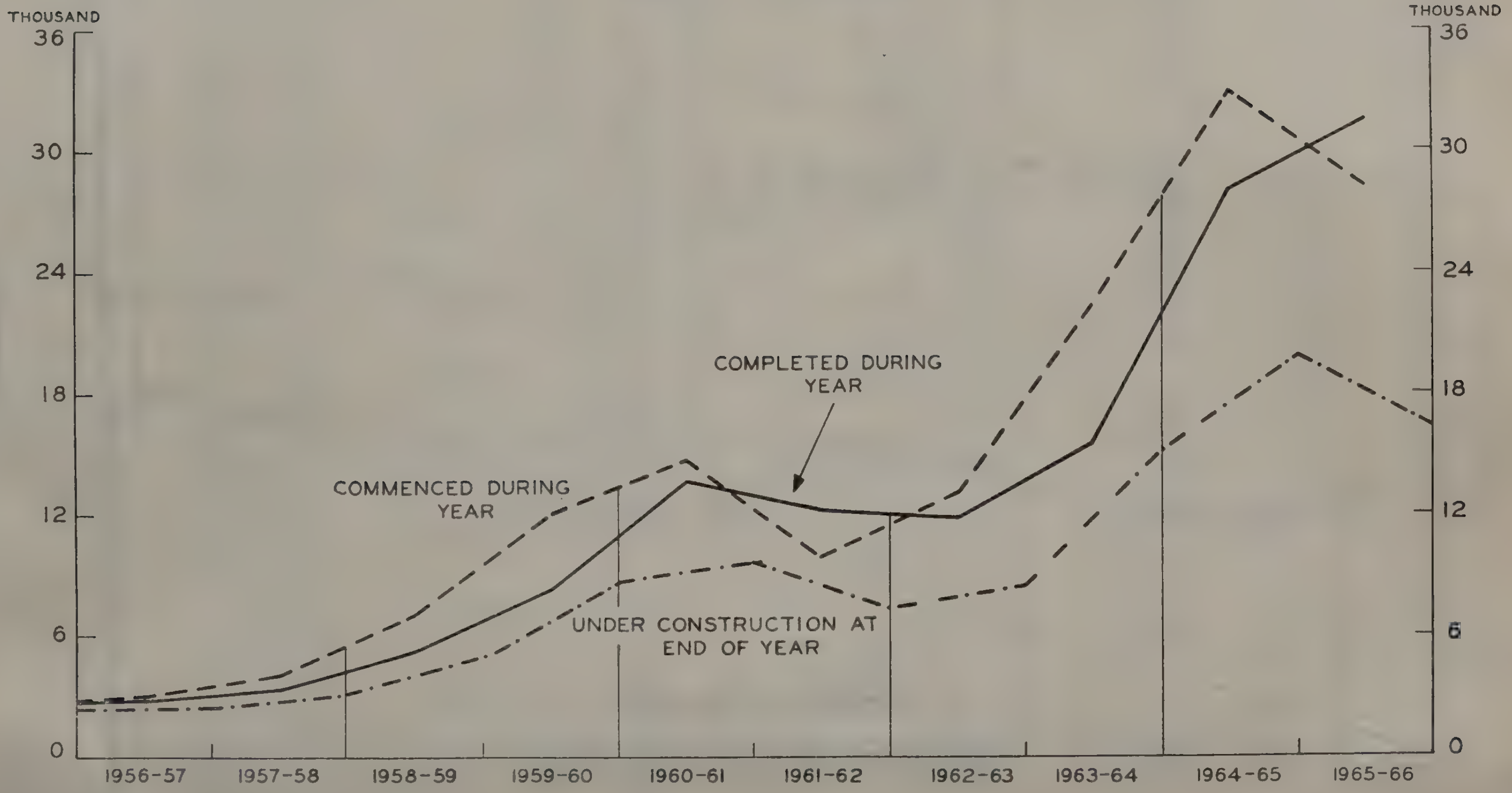


PLATE 23

NEW FLATS: NUMBER, STATES AND TERRITORIES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved	12,652	9,007	3,852	1,778	1,773	218	173	154	29,607
Commenced	12,468	8,549	3,636	1,547	1,550	211	116	163	28,240
Completed	14,862	9.506	2,964	1,856	1,624	221	125	512	31,670
Under construction at end of year	7,312	5,374	1,713	754	876	178	123	139	16,469

The following table shows the number of new flats approved in each State or Territory during the years 1961–62 to 1965–66, according to private and government ownership.

NEW FLATS APPROVED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1961–62	4,418	2,447	793	479	592	117	43	..	8,889
1962–63	6,511	3,269	785	787	999	145	27	102	12,625
1963–64	12,210	6,446	1,539	1,634	1,830	163	65	177	24,064
1964–65	16,337	9,418	3,132	2,488	1,718	224	90	368	33,775
1965–66	11,603	8,235	3,838	1,778	1,761	198	135	154	27,702
GOVERNMENT									
1961–62	1,329	844	27	81	..	..	24	28	2,333
1962–63	797	934	99	14	74	28	..	144	2,090
1963–64	1,105	878	68	..	..	2	84	128	2,265
1964–65	1,652	982	12	38	77	28	75	126	2,990
1965–66	1,049	772	14	..	12	20	38	..	1,905
TOTAL									
1961–62	5,747	3,291	820	560	592	117	67	28	11,222
1962–63	7,308	4,203	884	801	1,073	173	27	246	14,715
1963–64	13,315	7,324	1,607	1,634	1,830	165	149	305	26,329
1964–65	17,989	10,400	3,144	2,526	1,795	252	165	494	36,765
1965–66	12,652	9,007	3,852	1,778	1,773	218	173	154	29,607

The number of new flats commenced in each State or Territory during the years 1961–62 to 1965–66 is shown in the following table.

NEW FLATS COMMENCED: NUMBER, STATES AND TERRITORIES, 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62	4,927	3,001	588	605	493	166	62	28	9,870
1962–63	6,730	3,662	699	683	876	125	14	263	13.052
1963–64	10,210	7,089	1,311	1,386	1,743	120	128	290	22,277
1964–65	15,583	10,054	2,428	2,158	1,730	251	148	561	32,913
1965–66	12,468	8,549	3,636	1,547	1,550	211	116	163	28,240

The following table shows the number of new flats completed in each State and Territory during the years 1961–62 to 1965–66, according to private and government ownership.

NEW FLATS COMPLETED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1961–62 . .	4,750	3,450	829	473	241	138	2	13	9,896
1962–63 . .	5,037	2,864	684	545	642	91	33	33	9,929
1963–64 . .	6,894	3,515	920	907	1,221	156	26	114	13,753
1964–65 . .	12,150	7,884	1,946	1,775	1,826	131	53	191	25,956
1965–66 . .	12,822	8,486	2,952	1,797	1,547	205	51	386	28,246
GOVERNMENT									
1961–62 . .	1,188	620	99	120	24	16	..	256	2,323
1962–63 . .	716	908	96	141	..	6	26	129	2,022
1963–64 . .	882	755	29	82	74	8	..	36	1,866
1964–65 . .	976	790	133	45	15	22	84	146	2,211
1965–66 . .	2,040	1,020	12	59	77	16	74	126	3,424
TOTAL									
1961–62 . .	5,938	4,070	928	593	265	154	2	269	12,219
1962–63 . .	5,753	3,772	780	686	642	97	59	162	11,951
1963–64 . .	7,776	4,270	949	989	1,295	164	26	150	15,619
1964–65 . .	13,126	8,674	2,079	1,820	1,841	153	137	337	28,167
1965–66 . .	14,862	9,506	2,964	1,856	1,624	221	125	512	31,670

The number of new flats under construction at the end of each year 1961–62 to 1965–66 in each State and Territory is shown in the table below.

NEW FLATS UNDER CONSTRUCTION
NUMBER, STATES AND TERRITORIES, 1961–62 TO 1965–66

At end of year—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 . .	3,838	2,242	411	331	379	106	64	23	7,394
1962–63 . .	4,815	2,132	330	328	613	134	19	124	8,495
1963–64 . .	7,249	4,951	692	725	1,061	90	121	264	15,153
1964–65 . .	9,706	6,331	1,041	1,063	950	188	132	488	19,899
1965–66 . .	7,312	5,374	1,713	754	876	178	123	139	16,469

Value of new buildings approved, commenced, completed and under construction

The following table summarises, for the years 1961–62 to 1965–66, the values of all new buildings approved, commenced, completed and under construction in each State and Territory.

NEW BUILDINGS: VALUE, STATES AND TERRITORIES, 1961-62 TO 1965-66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
APPROVED									
1961–62 .	371,696	278,622	112,376	100,120	72,822	35,864	7,458	37,368	1,016,326
1962–63 .	403,234	328,342	128,688	115,124	78,116	35,752	9,254	45,584	1,144,094
1963–64 .	469,384	392,928	167,242	157,148	115,720	32,538	10,988	43,376	1,389,324
1964–65 .	531,344	437.514	203,386	166,010	131,958	42,760	17,658	48,220	1,578,850
1965–66 .	490,235	458,608	227,756	133,840	122,572	46,901	14,765	44,903	1,539,580
COMMENCED									
1961–62 .	419,196	304,186	105,834	103,492	73,524	35,386	7,964	38,070	1,087,652
1962–63 .	436,668	316,482	124,652	111,716	81,918	34,612	8,246	40,620	1,154,914
1963–64 .	514,054	394,698	150,356	149,776	118,556	34,664	10,164	42,400	1,414,668
1964–65 .	594,378	419,864	201,704	168,988	122,056	42,040	13,140	54,224	1,616,394
1965–66 .	558,427	450,737	225,553	145,997	130,982	43,789	15,405	49,935	1,620,825
COMPLETED									
1961–62 .	416,086	296,350	110,108	104,630	68,072	33,454	7,006	31,516	1,067,222
1962–63 .	411,526	333,568	112,694	121,120	86,428	34,128	8,872	38,124	1,146,460
1963–64 .	471,680	334,830	133,018	118,302	92,868	33,976	7,962	40,164	1,232,800
1964–65 .	531,544	402,280	178,470	154,500	107,100	37.744	11,784	42,986	1,466.408
1965–66 .	583,236	415,375	209,272	160,301	130,178	39,680	12,065	57,566	1,607,673
UNDER CONSTRUCTION AT END OF YEAR									
1961–62 .	334,816	256,592	56,896	83,016	49,006	27,776	7,856	43,650	859,608
1962–63 .	365,276	243,910	69,994	75,732	45,372	28,412	7,354	48,762	884,812
1963–64 .	413,202	306,278	87,888	111,514	71,848	29,094	9,770	52,048	1,081,642
1964–65 .	485,184	327,310	113.222	130.890	88,436	33,366	11,254	66,686	1,256,348
1965–66 .	473,627	369,747	133,544	120,662	90,982	37,412	14,816	59,615	1,300,405
VALUE OF WORK DONE DURING YEAR									
1961–62 .	413,436	298,472	108,718	105 408	75,014	34,776	7,888	33,260	1,076,972
1962–63 .	426,376	316,650	115,440	116,020	81,586	34,136	7,844	42,626	1,140,678
1963–64 .	490,116	362,740	148,578	135,936	97,692	35,850	9,432	43,510	1,323,854
1964–65 .	569,752	413,496	186,234	160,364	122,976	38,356	11,778	53,860	1,556,816
1965–66 .	614,477	442,402	221,746	156,762	133,483	43,201	13,749	55,308	1,681,128

The following tables show the value of all new buildings completed in each State and Territory during 1965–66 and in Australia during the years 1961–62 to 1965–66, according to the type of building.

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE STATES AND TERRITORIES, 1965-66

($'000)

Type of building	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Houses—									
Brick, brick veneer, concrete and stone	140,312	157,509	33,382	74,999	46,895	11,491	2,980	22,924	490,492
Wood (weatherboard, etc.)	26,169	15,492	41,327	166	107	6,033	..	24	89,318
Fibro-cement	55,524	9,966	15,856	3,996	10,822	226	2,586	102	99,078
Other	967	1,093	1,647	15	265	56	962	..	5,005
Total, houses	222,972	184,060	92,212	79,176	58.089	17,806	6,528	23,050	683,893
Flats	92,021	52,663	16,310	10,215	9,096	1,204	1,090	3,398	185,997
Total, houses and flats	*314,993*	*236,723*	*108,522*	*89,391*	*67,185*	*19,010*	*7,618*	*26,448*	*869,890*
Hotels, hostels, etc.	8,386	5,982	6,920	3,258	3,211	264	627	2,631	31,279
Shops	34,042	14.629	7,465	4,410	4,860	1,529	256	1,205	68.396
Factories	53,678	58,876	21,352	21,428	9,631	2,218	293	391	167.867
Offices	41,871	24,590	10,910	2,775	10,576	1,454	251	11,440	103,867
Other business premises	16,720	13,176	16.473	7,822	6,999	2,731	531	2,380	66,832
Education	58,196	29,127	18,006	15,172	8,459	5,113	833	6,660	141,566
Religious	5,813	3,492	1,659	2,535	965	254	48	235	15,001
Health	12,766	11,149	7,360	7,159	7,415	4,086	383	4,108	54,426
Entertainment and recreation	16,037	4,668	2,518	2,078	2,247	666	165	418	28,797
Miscellaneous	20,734	12,963	8,087	4,273	8,630	2,355	1,060	1,650	59,752
Total, other buildings	*268,243*	*178,652*	*100,750*	*70,910*	*62,993*	*20,670*	*4,447*	*31,118*	*737,783*
Total, new buildings	583,236	415,375	209.272	160,301	130,178	39,680	12,065	57,566	1,607.673

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE AUSTRALIA, 1961-62 TO 1965-66

($'000)

Type of building	1961–62	1962–63	1963–64	1964–65	1965–66
Houses—					
Brick, brick veneer, concrete and stone	287,482	330,048	398,664	461,528	490,492
Wood (weatherboard, etc.)	133,296	124,182	111,202	100,948	89,318
Fibro-cement	92,932	84,252	90,330	99,474	99,078
Other	2,108	2,068	2,062	3,772	5,005
Total, houses	515,818	540,550	602,258	665,722	683,893
Flats	77,352	69,666	83,560	157,270	185,997
Total, houses and flats	*593,170*	*610,216*	*685,818*	*822,992*	*869,890*
Hotels, hostels, etc.	30,128	37,068	27,818	29,074	31,279
Shops	47,340	49,112	51,490	46,366	68,396
Factories	102,068	115,822	128,426	152,638	167,867
Offices	62,114	71,796	90,076	116,826	103,867
Other business premises	43,210	43,792	54,004	68,110	66,832
Education	82,686	85,554	80,572	95,336	141,566
Religious	14,520	16,904	13,998	16,572	15,001
Health	35,406	44,972	38,602	43,740	54,426
Entertainment and recreation	23,244	33,782	26,606	31,282	28,797
Miscellaneous	33,336	37,442	35,390	43,472	59,752
Total, other buildings	*474,052*	*536,244*	*546,982*	*643,416*	*737,783*
Total, new buildings	**1,067,222**	**1,146,460**	**1,232,800**	**1,466,408**	**1,607,673**

The following table shows the value of all new buildings completed in Australia during the years 1963–64 to 1965–66, classified by type of building and private and government ownership.

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING AND OWNERSHIP VALUE, AUSTRALIA, 1963-64 TO 1965-66

($'000)

Type of building	Private			Government		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Houses—						
Brick, brick veneer, concrete and stone	355,364	411,346	434,475	43,298	50,182	56,017
Wood (weatherboard, etc.)	98,886	89,370	78,394	12,318	11,578	10,924
Fibro-cement	68,496	69,430	69,938	21,834	30,044	29,140
Other	1,948	3,472	3,405	114	300	1,600
Total, houses	524,694	573,618	586,212	77,564	92,104	97,681
Flats	72,962	145,284	165,462	10,598	11,986	20,535
Total, houses and flats	*597,656*	*718,902*	*751,674*	*88,162*	*104,090*	*118,216*
Hotels, hostels, etc.	26,628	27,664	30,135	1,190	1,410	1,144
Shops	50,076	44,912	66,152	1,414	1,454	2,244
Factories	112,136	135,554	155,052	16,290	17,084	12,815
Offices	61,412	76,340	60,720	28,664	40,486	43,147
Other business premises	41,216	48,912	46,824	12,788	19,198	20,008
Education	19,230	18,574	27,578	61,342	76,762	113,988
Religious	13.998	16,572	15,001	..	..	..
Health	4,434	6,660	8,590	34.168	37,080	45,836
Entertainment and recreation	21,874	24.730	22,329	4,732	6,552	6,468
Miscellaneous	13,250	15,992	16,893	22,140	27,480	42,859
Total, other buildings	*364,254*	*415,910*	*449,274*	*182,728*	*227,506*	*288,509*
Total, new buildings	**961,910**	**1,134,812**	**1,200,948**	**270,890**	**331,596**	**406,725**

Value of building approved

The following table shows the values of approvals for houses and flats, other new buildings, and alterations and additions in Australia for the years 1961–62 to 1965–66. Additions of $10,000 and over are included with new buildings in all States except New South Wales, where they are included in alterations and additions.

BUILDING APPROVED: VALUE, AUSTRALIA, 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Houses and flats	558,584	632,732	794,514	886,324	836,861
Other new buildings	457,742	511,362	594,810	692,526	702,719
Total, new buildings	*1,016,326*	*1,144,094*	*1,389,324*	*1,578,850*	*1,539,580*
Alterations and additions	156.210	172,256	184,142	212.580	195,182
Total, building	**1,172,536**	**1,316,350**	**1,573,466**	**1,791,430**	**1,734,762**
Private	891,050	1,004.310	1,161,564	1,380,326	1,314,673
Government	281,486	312,040	411,902	411,104	420,089

Persons working on jobs carried out by builders of new buildings

The following table shows the number of contractors, sub-contractors and wage earners working on jobs *carried out by builders of new buildings* in each State and Territory at 30 June 1966. It also shows the numbers of these persons classified according to their main building occupations and the type of building on which they were working.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, STATES AND TERRITORIES, 30 JUNE 1966

(Including Contractor and Sub-contractor Principals Actually Working on Jobs but Excluding Persons Working on Owner-built Houses)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Contractors	3,851	3,416	2,220	660	574	484	76	241	11,522
Sub-contractors	8.698	9,005	2,988	3,072	1,881	811	212	985	27,652
Wage earners	37,819	29,884	18,097	9,774	9,893	4,055	575	3,299	113,396
Total	*50,368*	*42,305*	*23,305*	*13,506*	*12,348*	*5,350*	*863*	*4,525*	*152,570*
Carpenters	16,991	15,070	10,476	3.581	3,591	2,303	296	1,190	53,498
Bricklayers	5,516	5,216	1,822	2,211	1,584	453	100	534	17,436
Painters	3,990	3,518	1,747	1,261	1,105	415	63	434	12,533
Electricians	2,939	2,370	1.091	720	825	294	63	309	8,611
Plumbers	4,613	3,882	1,822	1,238	1,064	326	92	395	13,432
Builders' labourers	7,860	5,173	3,775	1,866	2,047	888	144	762	22,515
Other	8,459	7,076	2,572	2,629	2,132	671	105	901	24,545
Total	*50,368*	*42,305*	*23,305*	*13,506*	*12,348*	*5,350*	*863*	*4,525*	*152,570*
New houses and flats	22,354	20,678	9,746	6,947	5,912	2,180	490	1,883	70,190
Other new buildings(*a*)	24,926	20,112	12,038	6,255	5 285	2,673	368	2,404	74,061
Repairs and maintenance(*b*)	3,088	1,515	1,521	304	1,151	497	5	238	8,319
Total	*50,368*	*42,305*	*23,305*	*13,506*	*12,348*	*5,350*	*863*	*4,525*	*152,570*

(*a*) Includes persons working on alterations and additions carried out by builders of new buildings. (*b*) Carried out by builders of new buildings.

The number of persons in each State and Territory working on jobs *carried out by builders of new buildings* at the end of June of each year 1962 to 1966 is shown in the following table.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, STATES AND TERRITORIES, JUNE 1962 TO 1966

(Including Contractor and Sub-contractor Principals Actually Working on Jobs but Excluding Persons Working on Owner-built Houses)

At—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
29 June, 1962	42,420	35,188	19,407	12,346	10,250	5,402	667	3,932	129,612
28 „ 1963	44,693	37,878	19,923	12,948	9,964	5,312	578	4,397	135,693
30 „ 1964	48,848	39,697	20,544	14,532	11,553	5,198	902	4,486	145,760
30 „ 1965	54 152	42,995	21,666	15,267	12,636	5,392	992	4,735	157,835
30 „ 1966	50,368	42,305	23,305	13,506	12,348	5,350	863	4,525	152,570

Government activities in the housing field

Housing Agreements between Commonwealth and State Governments

Under the Commonwealth-State Housing Agreements the Commonwealth Government makes substantial long-term loans to the States for the provision of housing.

The 1945 *Agreement.* In November 1945 the Commonwealth Government entered into an Agreement with the Governments of the States whereby the Commonwealth Government would provide finance for, and the State Governments would undertake the building of, housing projects. Tasmania withdrew from the Agreement in August 1950, and South Australia did not begin to operate under it until July 1953. Between 1945–46 and 1955–56, under this Agreement, the Commonwealth Government advanced $177,698,000 to New South Wales; $171,562,000 to Victoria; $48,688,000 to Queensland; $23,400,000 to South Australia; $54,100,000 to Western

Australia; and $5,670,000 to Tasmania. When Tasmania withdrew from the Agreement, it repaid all advances made to it.

Initially, dwellings constructed under the 1945 Agreement were sold only to tenants provided the tenant was able to arrange payment of the full purchase price to the State immediately on sale. Under this arrangement sales to tenants were relatively few. Subsequent amendments to the 1945 Agreement in 1955 and 1961 progressively eased the conditions of sale to tenants of dwellings constructed under the Agreement and permitted sales to tenants on terms and prices decided by the States. For information on the conditions of sale, etc., under the 1945 Agreement *see* Year Book No. 48, page 367.

The 1956 *Agreement*. In 1956 the Commonwealth and the States entered into a new Agreement under which added emphasis was placed on the construction of dwellings for private ownership. The Commonwealth Government provided finance to the States over a period of five years ending 30 June 1961 for the erection of dwellings. The Agreement provided that for the first two years of the five-year period a minimum of twenty per cent of the money advanced to each State and for the remaining three years a minimum of thirty per cent was to be allocated to a Home Builders' Account. Funds in these accounts were then advanced to building societies and other approved institutions for lending to private home builders and purchasers. The balance of the amounts advanced to each State was used by the States for the erection of dwellings for either rental or sale. The States determined the type of dwellings to be erected, their location and the selection of tenants, and also fixed the terms of sale. The Commonwealth was entitled to specify that up to five per cent of the moneys allocated for the erection of dwellings by the State be set aside for the erection of dwellings for serving members of the defence forces nominated by the Commonwealth. The Commonwealth provided supplementary advances to the States equal to the amounts set aside by them for this purpose. For other features of the 1956 Commonwealth and State Housing Agreement *see* Year Book No. 48, page 368.

The 1961 *Agreement*. The period during which Commonwealth advances to the States could be made under the 1956 Agreement terminated on 30 June 1961. A new Agreement was entered into which extended for a further five years the period during which advances could be made and also amended the 1956 Agreement in certain respects. The main effects of the amendments were:

(*a*) to allow the Commonwealth and a State to agree that the State would set aside funds for the erection of dwellings for rental to servicemen in excess of the previous maximum of five per cent of the allocation to the State housing authority, provided the Commonwealth made supplementary advances for the same purpose of the same amount or of such greater amount as was agreed between the Commonwealth and the State; and

(*b*) to provide for a rate of interest on Commonwealth advances equal to the long-term Commonwealth bond rate at the time each advance was made, less one per cent per annum.

The interest rates under the Agreement have been: from 1 July 1961 to 6 February 1962, 4⅜ per cent per annum; 7 February 1962 to 22 July 1963, 4 per cent per annum; 23 July 1963 to 13 May 1964, 3½ per cent per annum; 14 May 1964 to 12 August 1964, 3⅝ per cent per annum; 13 August 1964 to 12 April 1965, 4 per cent per annum; and since 13 April 1965, 4¼ per cent per annum.

The 1966 *Agreement*. A new Agreement was entered into which extended for a further five years the period during which advances could be made, and also amended the 1956–1961 Agreement in certain respects. The main effects of the amendments were:

(*a*) the bringing up to date of the definition of 'member of the forces', for the purposes of the Agreement;

(*b*) to eliminate the requirement for the Commonwealth and a State to agree to the erection by the State of blocks of flats in metropolitan areas;

(*c*) to enable the States, at the request of the Commonwealth, to agree to the erection of dwellings for rental to servicemen, in accordance with the Scales and Standards of Accommodation issued under the authority of the Department of Defence; and

(*d*) to permit the States to allocate portion of moneys available in the Home Builders' Account to an approved State Government lending institution for the provision by the institution of finance to home builders in rural areas.

Operations under the various Housing Agreements

The following tables show the operations under the various Housing Agreements during 1965–66 and to 30 June 1966. The tables do not include figures relating to the 1966 Agreement, which came into force after 30 June 1966. The earliest single year for which details are given in the tables is 1956–57; for earlier years *see* Year Book No. 50, pages 382–383.

COMMONWEALTH AND STATE HOUSING AGREEMENTS, SUMMARY, 1965-66

ADVANCES TO STATES ($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Advances to States(*a*), 1956 and 1961 Agreements	44,375	33,566	8,950	21,057	8,846	7,448	124,242
State Housing Programme(*b*)	28,190	21,788	5,758	10,200	6,020	5,214	77,170
Home Builders' Account—							
Advances(*c*)	12,081	9,338	2,739	10,857	2,581	2,234	39,830
Amounts drawn by institutions	16,156	10,558	3,263	11,756	2,676	2,541	46,950
Service Housing Funds allocated by—							
Commonwealth	4,104	2,441	453	..	245	..	7,243
States	1,243	956	231	..	245	..	2,675

NUMBER OF DWELLINGS

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
State Housing Programme—							
Commenced	3,070	2,533	(*d*) 830	1,674	909	555	(*d*) 9,571
Completed	4,347	2,686	(*d*) 864	1,525	970	544	(*d*) 10,936
Under construction at 30 June 1966	2,219	1,865	(*d*) 217	1,759	324	257	(*d*) 6,641
Home Builders' Account—							
Purchased—New	727	450	238	750	117	85	2,367
Other	79	..	..	..	..	23	102
New construction—							
Approved	1,387	832	285	1,162	350	186	4,202
Commenced	1,337	832	276	1,176	318	211	4,150
Completed	1,232	1,122	247	1,294	270	290	4,455
Service Housing—							
Agreed programme	577	193	52	..	69	..	891
Completed(*e*)	567	288	170	..	70	..	1,095
Sold under—							
1945 Agreement	432	749	163	1	67	(*f*)	(*f*) 1,412
1956 and 1961 Agreements	1,487	1,470	325	885	136	464	4,767

(*a*) Includes supplementary advances for Service Housing. (*b*) The maximum amount is 70 per cent of the Commonwealth advances, other than supplementary advances for Service Housing. (*c*) The minimum amount must be 30 per cent of the Commonwealth advances other than supplementary advances for Service Housing. (*d*) These figures include estimates supplied by the Queensland Housing Commission. During 1958–59 and subsequent years the Queensland State Housing programme was financed from a Trust Fund which included Housing Agreement moneys, together with moneys from other sources. (*e*) Also included in State Housing Programme above. (*f*) Tasmania did not operate under the 1945 Agreement after August 1950.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: ADVANCES TO STATES(*a*), 1956–57 TO 1965–66 AND TO 30 JUNE 1966

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(*b*)	Total
1956–57	22,464	20,800	5,720	7,422	6,222	4,050	66,678
1957–58	22,880	20,800	6,572	8,320	6,030	4,068	68.670
1958–59	24,840	21,320	6,852	10,350	6,206	4.440	74,008
1959–60	25,564	21,320	7,204	10,184	6,098	3,914	74,284
1960–61	26,910	21,320	6,416	11.658	6,112	4,004	76,420
1961–62	35,266	28,002	8.794	18,126	7,442	5,856	103,486
1962–63	33,800	26,600	8,502	19.012	7,010	5,200	100,124
1963–64	34,164	27,628	10,020	19,400	7,052	6,000	104,264
1964–65	38,132	34,360	8,232	20,500	7,492	6,400	115,116
1965–66	44,375	33,566	8,950	21,057	8,846	7,448	124,242
Total from 1 July 1945	**486,094**	**427,276**	**125,951**	**169,429**	**122,608**	**57,051**	**1,388,409**

(*a*) Includes supplementary advances (Service Housing) under the 1956 and 1961 Agreements. (*b*) Tasmania withdrew from the 1945 Agreement in August 1950 and repaid all advances made to it.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF DWELLINGS PROVIDED(*a*), STATES, 1956–57 TO 1965–66 AND TO 30 JUNE 1966

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(*b*)	Total
1956–57 . . .	3,602	3,038	1,369	1,997	958	525	11,438
1957–58 . . .	4,494	3,369	1,113	1,959	1,472	566	12,979
1958–59 . . .	4,440	3,673	(*c*)1,368	2,023	1,225	594	(*c*)13,323
1959–60 . . .	4,736	3,924	(*c*)1,173	2,318	1,009	688	(*c*)13,848
1960–61 . . .	4,309	3,447	(*c*)1,247	2,457	1,056	666	(*c*)13,182
1961–62 . . .	6,163	4,569	(*c*)1,419	3,101	1,242	706	(*c*)17,200
1962–63 . . .	5,654	3,921	(*c*)1,239	3,560	1,519	804	(*c*)16,697
1963–64 . . .	5,553	3,922	(*c*)1,435	3,429	1,460	824	(*c*)16,623
1964–65 . . .	6,342	4,431	(*c*)1,121	3,637	1,022	895	(*c*)17,448
1965–66 . . .	6,385	4,258	(*c*)1,349	3,569	1,357	942	(*c*)17,860
Total from 1 July 1945(*d*) . .	**89,396**	**69,477**	***c*** **22,490**	**32,954**	**24,394**	**8,340**	***c*** **247,051**

(*a*) The total number of houses and flats completed under State Housing Programmes plus, since 30 June 1956, the numbers completed and purchased under the Home Builders' Account. (*b*) Tasmania withdrew from the 1945 Agreement in August 1950 and repaid all advances made to it. (*c*) The figure for the number of dwellings completed from Housing Agreement moneys under the State Housing programme of Queensland is an estimate only, supplied by the Queensland Housing Commission (*see* footnote (*d*) to table on page 278). (*d*) Includes some dwellings erected before 1945–46 to which the 1945 Agreement applied.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF HOUSES SOLD, 1956–57 TO 1965–66 AND TO 30 JUNE 1966

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1956–57 . . .	3,197	1,732	466	231	294	207	6,127
1957–58 . . .	3,679	1,336	672	259	737	398	7,081
1958–59 . . .	2,507	2,506	(*a*) 628	252	222	247	(*a*) 6,362
1959–60 . . .	2,701	2,672	(*a*) 566	140	324	311	(*a*) 6,714
1960–61 . . .	2,004	2,704	(*a*) 551	88	572	329	(*a*) 6,248
1961–62 . . .	2,303	2,125	(*a*) 476	33	555	354	(*a*) 5,846
1962–63 . . .	2,598	1,791	(*a*) 255	96	590	311	(*a*) 5,641
1963–64 . . .	1,521	1,799	(*a*) 382	457	210	431	(*a*) 4,800
1964–65 . . .	2,361	2,028	(*a*) 230	812	180	532	(*a*) 6,143
1965–66 . . .	1,919	2,219	(*a*) 488	886	203	464	(*a*) 6,179
Total from 1 July 1948 . .	**27,192**	**22,291**	(*a*)**5,095**	**3,537**	**5,666**	**3,584**	(*a*)**67,365**

(*a*) Estimates supplied by the Queensland Housing Commission (*see* footnote (*d*) to table on page 278).

War service homes

The *War Service Homes Act* 1918–1966 makes provision for assistance to be granted to persons who satisfy the eligibility conditions set out in the Act, to enable them to acquire on concessional terms a soundly constructed home that they would occupy as a residence.

Persons eligible for assistance under the Act include members of the Australian forces and nursing services enlisted or appointed for or employed on active service outside Australia or on a ship of war, during the 1914–1918 and 1939–1945 Wars and persons who served in the war-like operations in Korea or Malaya or who have served on 'special service' as defined in the *Repatriation (Special Overseas Service) Act* 1962–1966. 'Special service' includes 'special duty' in an area which by reason of war-like operations or a state of disturbance has been declared a 'special area' under the Repatriation (Special Overseas Service) Act. The areas declared as a 'special area' under the Act are:

Vietnam (Southern Zone) from 31 July 1962;
certain areas of Borneo, Sabah and Sarawak from 8 December 1962;
certain areas of Malaya from 28 May 1963;
Malaysia (the remainder) and Singapore from 7 July 1965.

The categories of eligible persons also include the widow and, in some circumstances, the widowed mother of an eligible person and persons domiciled in Australia and employed in certain sea-going service during the 1914–1918 and 1939–1945 Wars.

The Director of War Service Homes is responsible for the execution of the War Service Homes Act subject to the directions of the Minister for Housing.

Operations under the War Service Homes Act

The following tables give details of the operations under the War Service Homes Act in the year 1965-66 and from the inception of the scheme on 6 March 1919 to 30 June 1966. The earliest single year for which details are given in the tables is 1956–57; for earlier years *see* previous issues of the Year Book. The figures shown include operations in the Territories of Papua, New Guinea and Norfolk Island.

WAR SERVICE HOMES ACT: OPERATIONS, AUSTRALIA, 1965-66 AND TO 30 JUNE 1966

		1965–66			From inception to 30 June 1966	
	Eligibility established from service in—			Eligibility established from service in—		
	1914–18 War	1939–45 War, Korea, etc. (*a*)	Total	1914–18 War	1939–45 War, Korea, etc. (*a*)	Total
Applications received . No.	541	10,300	10,841	116,814	380,850	497,664
Applications approved . ,,	556	10,549	11,105	57,019	224,615	281,634
Homes purchased . . ,,	385	6,867	7,252	19,299	113,328	132,627
Homes built, or assistance given to build them . . No.	28	1,115	1,143	24,009	66,532	90,541
Mortgages discharged . ,,	48	1,404	1,452	4,162	29,127	33,289
Total homes provided . ,,	461	9,386	9,847	47,470	208,987	256,457
Transfers or resales . ,,	53	694	747	9,454	13,026	22,480
Total capital expenditure $'000	n.a.	n.a.	70,010	n.a.	n.a.	1,155,417
Total receipts . . ,,	n.a.	n.a.	62,166	n.a.	n.a.	629,288

(*a*) Korea, Singapore, Malaysia or Vietnam (Southern Zone).

WAR SERVICE HOMES ACT: OPERATIONS, AUSTRALIA 1956-57 TO 1965-66

Year	Number of—					Total capital expenditure	Total receipts
	Applications received	Homes provided					
		Homes purchased (*a*)	Homes built (*b*)	Mortgages discharged	Total		
						$'000	$'000
1956–57 . .	20,553	5,813	4,187	1,227	11,227	60,342	25,380
1957–58 . .	22,081	6,150	5,524	1,584	13,258	70,364	29,304
1958–59 . .	21,935	6,660	5,254	1,497	13,411	70,318	33,538
1959–60 . .	20,661	8,437	3,169	1,411	13,017	70,136	39,672
1960–61 . .	15,888	8,005	2,791	2,211	13,007	70,084	42,028
1961–62 . .	16,925	7,708	2,572	2,137	12,417	70,050	43,006
1962–63 . .	16,015	6,855	1,944	1,857	10,656	75,020	48,250
1963–64 . .	13,812	6,206	1,784	1,636	9,626	70,016	55,166
1964–65 . .	12,381	6,727	1,398	1,551	9,676	70,104	60,866
1965–66 . .	10,841	7,252	1,143	1,452	9,847	70,010	62,166

(*a*) Homes purchased with assistance under the War Service Homes Act. (*b*) Or assistance given to build a home.

WAR SERVICE HOMES ACT: NUMBER OF HOMES PROVIDED STATES AND TERRITORIES, 1956-57 TO 1965-66

Year	N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1956–57 . .	4,316	3,666	883	859	1,157	259	2	85	11,227
1957–58 . .	5,236	4,132	855	1,079	1,588	297	3	68	13,258
1958–59 . .	6,176	3,939	994	889	1,002	349	8	54	13,411
1959–60 . .	5,698	3,908	1,112	853	1,096	277	7	66	13,017
1960–61 . .	6,101	3,308	1,145	876	1,288	233	9	47	13,007
1961–62 . .	4,871	3,534	1,525	912	1,243	239	6	87	12,417
1962–63 . .	4,037	2,841	1,394	889	1,139	229	5	122	10,656
1963–64 . .	3,747	2,787	1,140	695	939	222	3	93	9,626
1964–65 . .	3,901	2,670	1,184	752	885	216	. .	68	9,676
1965–66 . .	3,812	2,799	1,350	856	727	229	4	70	9,847

(a) Includes Norfolk Island. (b) Includes Territories of Papua and New Guinea.

In addition to the homes provided under the War Service Homes Act and shown above, 2,297 homes, which had been provided originally under the Housing Agreements with the States, have been taken over in accordance with those Agreements, 51 being taken over during 1965–66.

Home Savings Grant Scheme

The administration of the Homes Savings Grant Act is a function of the Commonwealth Department of Housing. The purpose of the Home Savings Grant Scheme is to assist young married persons to purchase or build their own homes. A further objective is to increase the proportion of total private savings available for housing purposes by encouraging young people to save with those institutions which provide the bulk of long-term housing finance.

The scheme provides for the payment of grants from the National Welfare Fund of $1 for every $3 saved by young persons for the first home they own after marriage. The savings must be made over a period, and held in an approved form. The maximum grant to a married couple, or to husband or wife if only one is eligible, is $500 on savings of $1,500 or more. Smaller grants are, however, payable on lesser amounts saved. To be eligible for the grant, a person must be married, and must have—or must be married to a person who has—entered into a contract to buy a home or have one built, or begun to build a home as an owner-builder. The person must be under 36 years of age at the time of marriage and at the date of the contract to buy or build or the date building began, must have either been an Australian citizen or lived in Australia during the three years immediately preceding that date, and must also have saved in Australia in an approved form throughout that period. Those three years together with any earlier corresponding years during which savings are made in an approved form are known as the applicants 'savings years'. The grant is payable in respect of existing homes and homes being built. Flats and home-units may also be eligible provided separate title can be obtained. The home, including the land, the house itself and any other improvements, must not cost more than $14,000. Most homes are eligible, the main exception being homes purchased from State housing authorities, which have been built with money advanced by the Commonwealth under the Commonwealth-State Housing Agreement at concessional rates of interest.

The main forms of saving acceptable under the Scheme are Home Savings Accounts with savings banks, fixed deposits with trading banks designated Home Savings Accounts, and deposits with or shares in registered building or co-operative housing societies. Savings spent in connection with the purchase or construction of the home prior to the date of the contract to buy or build the home, or the date building began, are also acceptable. In addition, savings in certain other forms up to 31 December 1964 are acceptable up to 31 December 1967 if they remain in those forms. These forms are accounts with savings and trading banks other than Home Savings Accounts, and deposits with registered friendly societies and credit unions. However, all new and additional savings after 1 January 1965 must be in one or more of the forms mentioned earlier to be acceptable. The amount of savings that qualify for a grant is the sum of the amounts saved, in acceptable forms, in each savings year. However, in any savings year commencing on or after 1 January 1965 there is a limit of $500 on the amount of savings that can qualify for a grant. In a savings year commencing before 1 January 1965 the maximum amount that can qualify may be more than $500 but may not exceed $1,120.

Full details of the scheme are set out in the official pamphlet *A Grant for Your Home* available from banks, building and housing societies, post offices, and offices of the Department of Housing throughout Australia. Additional statistical information is contained in the Annual Reports by the Secretary, Department of Housing, on the *Homes Savings Grant Act* 1964–1966, which are available from the Government Printer, Canberra.

Operations under the Home Savings Grant Scheme

Particulars of applications received and approved during 1965–66 and during the period from 20 July 1964, when the scheme commenced to operate, to 30 June 1966 are set out on pages 282–3.

HOME SAVINGS GRANT SCHEME: OPERATIONS, STATES AND TERRITORIES 1965-66

	N.S.W.	Vic.	Qld	S.A.(*a*)	W.A.	Tas.	A.C.T.(*b*)	Aust.
Applications received No.	10,450	9.219	3,750	2,927	1,713	697	267	29,023
Applications approved(*c*) ,,	10,905	9.193	3,782	2,998	1,783	755	231	29,647
Grants approved . $'000	4,990	4,214	1,652	1,313	751	323	105	13,348
Average grant approved $	458	458	437	438	421	427	456	450
Expenditure from National Welfare Fund . $'000	5,017	4,183	1,634	1,319	762	325	106	13,346

(*a*) Includes Northern Territory. (*b*) Includes Municipality of Queanbeyan, N.S.W. (*c*) Includes applications received on or before 30 June 1965 and approved after that date. There were fewer applications on hand at 30 June 1966 than were outstanding at 1 July 1965.

HOME SAVINGS GRANT SCHEME: OPERATIONS, 1964–65 AND 1965–66 AND TO 30 JUNE 1966

Year	Applications received	Applications approved	Grants approved	Average grant approved	Expenditure from National Welfare Fund
			$'000	$	$'000
1964–65 . .	35,283	25,079	11,510	458	11,349
1965–66 . .	29,023	29,647	13,348	450	13,346
Total from 20 July 1964 .	64,306	54,726	24,858	..	24,695

Homes qualifying for grants

The two following tables contain particulars of homes in respect of which grants were approved during 1965–66. As grants are payable only to persons under 36 years of age and in respect of homes costing no more than $14,000, these statistics should not be regarded as being applicable to home owners in general.

HOME SAVINGS GRANT APPLICATIONS APPROVED: MANNER OF ACQUISITION TOTAL COST AND AVERAGE COST OF HOME (INCLUDING LAND) STATES AND TERRITORIES, 1965-66

State or Territory	Purchase of house(*a*)			Purchase of flat/home unit			Home built under contract		
	Number of approvals	Total cost	Average cost	Number of approvals	Total cost	Average cost	Number of approvals	Total cost	Average cost
		$'000	$		$'000	$		$'000	$
New South Wales . .	5,979	57,500	9,617	256	2,673	10,443	4,127	44.133	10,694
Victoria	4,762	46,941	9,838	18	190	10,552	3,862	41.782	10,818
Queensland	1,881	14,575	7,748	2	26	13,123	1,617	14,656	9,064
South Australia(*c*) . .	1,586	15,177	9,569	..	..	..	1,314	13.585	10,339
Western Australia . .	1,000	8,284	8,284	5	42	8,420	702	7,827	11,149
Tasmania	340	2,951	8,680	1	9	8,500	240	2,266	9,440
Australian Capital Territory(*d*)	91	1,131	12,427	..	..	..	107	1,358	12,673
Australia . . .	15,639	146,559	9,371	282	2,940	10,426	11,969	125,607	10,494

State or Territory	Owner-built home			All homes		
	Number of approvals	Total cost (*b*)	Average cost (*b*)	Number of approvals	Total cost	Average cost
		$'000	$		$'000	$
New South Wales . .	543	5,252	9.672	10,905	109.559	10,047
Victoria	551	5,525	10,026	9,193	94,438	10,273
Queensland . . .	282	2,344	8,312	3,782	31,601	8,356
South Australia(*c*) . .	98	998	10,179	2,998	29.760	9,927
Western Australia . .	76	717	9.430	1,783	16.869	9,461
Tasmania	174	1,773	10,189	755	6,998	9,269
Australian Capital Territory(*d*)	33	406	12,326	231	2.895	12.533
Australia . . .	1,757	17,014	9,684	29,647	292,121	9,853

(*a*) Includes previously occupied houses. (*b*) Based on the cost of the land and an estimated value of the house. (*c*) Includes Northern Territory. (*d*) Includes Municipality of Queanbeyan, N.S.W.

HOME SAVINGS GRANT APPLICATIONS APPROVED: METHOD OF FINANCING HOMES AND AVERAGE MORTGAGE LOANS, STATES AND TERRITORIES, 1965-66

State or Territory	Method of financing homes				Average first mortgage loan (*b*)	Average second mortgage loan
	With first mortgage loan and without second mortgage loan	With first and second mortgage loans	Other(*a*)	Total		
	number	number	number	number	$	$
New South Wales	8,751	1,775	379	10,905	6,495	1,502
Victoria	7,134	1,213	846	9,193	6,729	1,455
Queensland	3,452	146	184	3,782	5,936	1,241
South Australia(*c*)	1,844	917	237	2,998	7,126	1,504
Western Australia	1,126	378	279	1,783	6,257	1,452
Tasmania	554	147	54	755	6,291	1,246
Australian Capital Territory(*d*)	92	137	2	231	7,035	3,160
Australia	**22,953**	**4,713**	**1,981**	**29,647**	**6,542**	**1,518**

(*a*) Homes financed without mortgage loan. Includes homes financed from the applicants' own resources only, with personal or unsecured loans, purchased under a terms contract of sale, etc. (*b*) Includes homes financed with and without second mortgage loans. (*c*) Includes Northern Territory. (*d*) Includes Municipality of Queanbeyan, N.S.W.

Housing Loans Insurance Scheme

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act* 1965, assented to on 4 May 1965, to insure approved lenders against losses arising from the making of housing loans. The Corporation consists of a chairman (who is also managing director) and a deputy chairman, who are full-time members, and three part-time members, all of whom are appointed by the Governor-General. The main purpose of the activities of the Corporation is to assist people to borrow, as a single loan and at a reasonable rate of interest, the money they need and can afford to repay to obtain a home suited to their requirements.

To encourage the making of high-ratio loans the Corporation will insure loans up to 95 per cent of valuation for houses valued at $12,000 or less. Where the valuation of a home exceeds $12,000 the maximum insurable amount is 95 per cent of the first $12,000 of valuation plus 70 per cent of the balance, or $17,000, whichever is the lesser. A once-and-for-all premium of 2 per cent of the amount of the loan is charged by the Corporation. The premium is payable by the borrower, but lenders may agree to add it to the amount of the loan for repayment by the borrower over the duration of the loan. The maximum rate of interest that may be charged on insured loans is 7¼ per cent (June 1966) per annum and the maximum period for repayment is thirty-five years. The maximum rate of interest is kept under continuing review and may be varied by the Corporation, with the concurrence of the Minister for Housing, whenever changes appear to be warranted by movements in interest rates generally or by other developments.

The Housing Loans Insurance Corporation insures loans that are made for a wide range of purposes in addition to the purchase or construction of a dwelling. The other purposes include alterations, extensions or improvements to a dwelling, and the provision or improvement of roads, kerbing and footpaths. An insured loan may be made only by an approved lender. Approved lenders are appointed by the Corporation from within approved classes of lenders specified by the Minister for Housing. The approved classes include banks, building societies, co-operative housing societies, friendly societies, life insurance companies, and trustee companies. The Housing Loans Insurance Corporation commenced its insurance operations in November 1965.

State housing authorities

The following paragraphs describe briefly the organisation of the various State housing authorities and their activities in the fields of home construction and provision of homes on a rental basis (*see* pages 288–91 for their financial advances to persons wishing to purchase or build a home). For summarised figures of total government construction of houses and flats, *see* pages 266–7 and 271–2.

New South Wales—The Housing Commission of New South Wales. The Housing Commission of New South Wales was constituted in 1942, with a full-time salaried chairman and four other members remunerated by fees. The principal function of the Commission is the provision of low-cost housing for rental or sale to persons in the lower or moderate income groups. The Commission is also empowered to make surveys of housing conditions, recommend local government building ordinances, provide assistance to private home builders, and undertake the manufacture, purchase, and supply of building materials.

Advances from the Commonwealth have provided most of the Housing Commission's capital funds. Of the $469,822,776 total capital funds available to the Commission from its inception to 30 June 1966, $402,501,080 (or 85.7 per cent) came from Commonwealth advances, $11,024,049 (2 3 per cent) from Consolidated Revenue, $14,068,354 (3.0 per cent) from General Loans Account, $16,978,644 (3.6 per cent) from other State funds, and $25,250,649 (5.4 per cent) from the Commission's own funds. During the year 1965–66 the Housing Commission's income and expenditure (other than capital transactions) was—total income, $28,335,161 (consisting of rent $18,863,708, interest $6,751,816, other $2,719,637); and total expenditure $24,840,283.

Most of the permanent dwellings provided by the Commission have been erected under the Commonwealth-State Housing Agreements. In 1965, 5,651 houses and flats, valued at $29,846,286 were completed for the Housing Commission by private builders on contract to the Commission.

Upon request by other State Departments the Housing Commission will erect houses for employees of those Departments, e.g. Education, Agriculture, Water Conservation, etc. These Departments provide the necessary land and funds needed to finance the erection of the houses. Rentals charged are fixed by the Departments in accordance with the salaries of the officers occupying the houses. In addition, the Commission erects (with State funds) dwellings for employees of industries connected with decentralisation and development. The number of rental houses erected (other than under the Housing Agreements) is 1,612. Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units are $2 a week for elderly single persons and $3 a week for elderly couples, and 3,050 units had been completed at 30 June 1966.

Applicants for Commission housing may, when their priority has been reached, elect either to purchase or to rent the dwelling allocated to them. Should they decide to purchase, terms of sale provide for a minimum deposit of $100 with repayments spread over a maximum period of forty-five years, with interest currently at the rate of 5 per cent. There is no limit on the amount of outstanding indebtedness. Further, those tenants who originally elect to rent may subsequently purchase the dwellings occupied by them on similar terms. Applicants who have established eligibility for Housing Commission accommodation may apply to have a standard type of dwelling erected on their own block of land. At 30 June 1966, 383 dwellings had been completed under this scheme. During the years 1954 and 1955 the Housing Commission completed 100 houses for sale which were sold through the Rural Bank on the basis of 10 per cent deposit with repayment of the balance over a maximum period of forty years. This scheme was limited to 100 houses.

Victoria—Housing Commission, Victoria. A preliminary investigation into housing conditions in Victoria was begun in July 1936, when a board for the purpose was appointed by the Government. As a result of their report the *Housing Act* 1937 was passed by Parliament and provided for the appointment of a Housing Commission of four members (reduced to three in 1954) to be the central housing authority of the State. The Housing Commission of Victoria was appointed on 1 March 1938.

The objects of the Commission as now laid down are the improvement of existing housing conditions; the provision of suitable rental housing for persons displaced by slum reclamation or living under unsatisfactory conditions, and for other eligible persons; the sale of houses to eligible persons and the making of advances to such persons to enable them to own their homes; the development of land for housing and related purposes; and the responsibility of maintaining housing standards. Since the signing of the 1945 Commonwealth-State Housing Agreement the construction of dwellings has been financed by the Commonwealth Government and Commission Funds.

At 30 June 1966 the Housing Commission had completed 1,328 dwelling units under the State Housing Scheme, and 55,362 dwelling units under Commonwealth-State Agreements. An additional 2,175 units were either under construction or let to contract at this date. Specially designed dwelling units are erected by the Commission to provide dwellings for elderly persons at rentals within their means. To 30 June 1966, 2,759 units had been completed. Under the *Aborigines Act* 1958, as amended by the *Aborigines* (*Houses*) *Act* 1959, the Aborigines Welfare Board is empowered to buy houses, or land on which to erect houses, for occupation as dwellings by Aborigines. To 30 June 1966, 104 units had been completed.

State Government Authorities, such as the Public Works Department, State Electricity Commission, Victorian Railways, State Rivers and Water Supply Commission, etc., provide, from time to time, the necessary land and finance for the erection of dwellings for employees of those departments. Rentals charged are fixed by the Government Authorities in accordance with the salaries of officers occupying the dwellings. The dwellings erected by these State Government Authorities do not come under the control of the Victorian Housing Commission.

Prior to the end of the Second World War the Commonwealth Government and various State Governments made arrangements for the settlement of discharged soldiers on the land as part of a general scheme of rehabilitation of ex-members of the Services. In 1945 the Victorian Government completed an Agreement with the Commonwealth Government, and legislation was passed constituting the Soldier Settlement Commission. On 17 March 1962 the Rural Finance and Settlement Commission came into being, constituted by an Act passed in December 1961. Activities under the *Soldier Settlement Act* 1958 and the *Land Settlement Act* 1959, previously administered by the Soldier Settlement Commission, are now carried out by the new Commission. At 30 June 1966 a total of 3,280 houses had been erected and 30 were still under construction or approved but not yet started.

Queensland—The Queensland Housing Commission. The Queensland Housing Commission was established in 1945 to assist in meeting the housing shortage. It took over the operations of the State Advances Corporation which was established in 1916 to make advances to home builders under '*The State Advances Act of* 1916' (State housing in Queensland originally began in 1910 under the Workers' Dwelling Board). In addition, the Commission was empowered to build houses itself, either for sale or for rental.

The Housing Commission finances its operations through two Treasury Trust Funds—the Queensland Housing Commission Fund and the Commonwealth-State Housing Fund. In addition, a Home Builders' Deposit Trust Fund is available to assist eligible persons to accumulate money to acquire land and erect a Commission dwelling thereon, or to purchase a dwelling under contract of sale conditions. Total disbursements by the Commission for the year 1965–66 amounted to $26,969,760, representing $7,529,516 from the Queensland Housing Commission Fund and $19,440,244 from the Commonwealth-State Housing Fund, while the Home Builders' Deposit Fund had a balance of $2,080 at 30 June 1966.

During 1965–66 the Commission completed 1,702 house units, bringing the total completions under all schemes since the revival of housing construction in 1944–45 to 33,246. Of this number, 19,807 houses, or 59.6 per cent, were for home ownership, and 13,439 or 40.4 per cent, were for rental.

In the field of rental housing the Commission administers and acts as the constructing authority for the Commonwealth-State Housing Agreements of 1945, 1956 and 1961. These agreements have made possible large-scale home building programmes during the post-war years, the houses so built being mainly for rental, although subsequently they may be sold.

Operating under the provisions of '*The State Housing Acts*, 1945 *to* 1966' the Commission, through its scheme of workers' dwellings, makes advances for the construction of dwellings to eligible persons who own a suitable building site. To be eligible to qualify for any of its home-ownership schemes, a person must not own, nor must his wife or her husband own, a house in Queensland or elsewhere. The number of workers' dwellings completed during 1965–66 amounted to 317, making a total of 29,773 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees. Home ownership is further assisted through the Commission's power to sell houses under contract of sale conditions. It may sell houses already erected to eligible applicants, or it will erect a dwelling to the intending purchaser's own design, on Commission land, for subsequent sale to him. Tenants of rental houses may also purchase under contract of sale conditions the houses they are occupying. Contract of sale agreements were made to purchase 549 of the Commission's houses during 1965–66. The Commission is also authorised, under '*The State Housing Acts Amendment Act of* 1961', to sell freehold land, or lease vacant Crown land which has been set apart for the purposes of the State Housing Acts, to an eligible person for the erection of a dwelling, subject to the condition that within eighteen months from the date of contract he will execute a building agreement for the erection of a dwelling thereon for his occupation.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust was constituted in 1937 under the South Australian Housing Trust Act, 1936–1937 for the purpose of providing comfortable homes for workers in regular employment on the lower ranges of income and for tenants in serious financial straits. The Housing Trust builds houses for both rental and sale, and from July 1946 to 30 June 1966, 56,333 houses were erected by the Trust in both city and country areas.

Rents charged for Trust accommodation are generally based on the overall cost of construction, and vary not only according to the size of the dwelling but also according to date of erection. As at 1 January 1967 the rents of five-roomed houses (i.e. three bedrooms) ranged from $4.25 a week for houses of an older type to $8.00 a week for houses then being completed. Factors taken into consideration when allotting rental houses include date of application, housing need and suitability of tenant. Persons with high incomes are asked to consider purchasing their own homes. Two- and three-storey groups of flats with weekly rental ranging from $8.25 to $15.50

per flat have been built in the Metropolitan Area and at Elizabeth. At 30 June 1966, 1,199 of these flats had been completed in the Metropolitan Area and 220 at Elizabeth. In 1953 the Trust began building cottage or pensioner flats for elderly people. At 30 June 1966 it had built 785 cottage flats for its own scheme and an additional 463 for, and at the expense of, charitable organisations. In 1958 the State Government instituted the rental-grant scheme for the purpose of providing houses in the country towns for people who cannot afford to pay an economic rent, and to 30 June 1966, 184 houses had been built.

Houses built under the sales scheme, which was inaugurated in 1946, are of solid or timber-frame construction. More than 28,700 have been completed in both metropolitan and country areas since the scheme began. The Trust may receive cash payment for the house and land. More usually the purchaser pays a deposit (which varies according to the type of house and locality and the purchaser's ability to pay) and raises the balance by way of mortgage. In 1956 the Trust began the erection of houses, which may be of solid or timber-frame construction or a mixture of both, for individuals on their own land. Houses are built by contract under the Trust's supervision. Prices for building and supervision of the standard five-roomed houses covered by the scheme in late 1965 ranged from $7,400 to $11,200. During 1962–63 the Trust commenced construction of rental-purchase houses. The aim of this scheme is to provide less expensive houses for the lower-middle income group, and it is expected that such houses will, as far as possible, replace the demand for the double-unit type rental houses. By 1 October 1966 approximately 2,426 rental-purchase houses had been built.

Upon request by State Government Departments the Trust will erect houses for purchase by those Departments for the accommodation of their employees. Rents for the houses are determined by the Public Service Board. The Trust has built 177 houses in country towns for the Department of Aboriginal Affairs. The houses are owned and managed by the Department and let by it to specially selected Aboriginal families. The aim of the scheme is to provide an opportunity for those of Aboriginal blood, who are both able and disposed to do so, to take their place in the general community.

In order to assist primary producers the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting prefabricated houses to the site. At 30 June 1966 prices for three-bedroom asbestos-cement sheeted timber houses erected on a level site within 100 miles of Adelaide ranged from $6,800 upwards.

Western Australia—State Housing Commission of Western Australia. The State Housing Commission was established in January 1947, under the *State Housing Act, 1946*, to replace the Workers' Homes Board. The *State Housing Act, 1946–1964* has as its objects 'the improvement of existing housing conditions' and 'the provision of adequate and suitable housing accommodation for persons of limited means and certain other persons not adequately housed'. It provides for the erection of homes for workers, the making of advances to workers for the purchase of homes, the erection of homes for letting on a weekly rental basis, the acquisition and development of land, the clearing of slums, the erection of hostels, and the planning of community facilities. The Commission, consisting of seven members, builds houses for letting or sale and lends money for home building. The houses are built by private contract on land provided by the applicant or the Commission. The administration of the Commonwealth and State Housing Agreements and the War Service Homes Act is included in the functions of the Commission. The number of houses completed under the State Housing Act up to 30 June 1966 was: freehold, 4,839; leasehold, 3,086; assistance by second mortgage, 1,578.

Various forms of assistance have been granted by the Commission to encourage home ownership, including schemes for arranging purchase by means of loans secured by mortgage, advances made under contract of sale, advances for securing homes under leasehold conditions, second mortgage loans, and loans for the completion of partly built dwellings. Under the leasehold scheme a purchaser can convert from perpetual Crown lease or lease for a term of years to freehold conditions upon having a 10 per cent equity in the improvements and by agreeing to purchase the land at the valuation determined at the date of commencement of the lease.

Purchasers of Commission houses also gain relief from a Death Benefit Scheme at no extra cost to themselves. Under this scheme the surviving spouse and children are assisted upon the death of the family wage-earner. Maximum benefit is a reduction of liability by $1,000 plus $200 for each dependent child under sixteen years of age. The maximum benefit is payable when the wage-earner is under thirty-six years of age, decreasing until the wage-earner reaches sixty-five years when no benefit is payable unless there are dependent children under sixteen years of age.

The Commission also conducts certain other housing schemes and has completed or is currently engaged in other specific projects, details of which are given in previous Year Books. Included among current activities are the building and maintenance of houses for the Government Employees' Housing Authority which has taken over 154 homes built in country areas under the former Government Employees' Housing Scheme and 383 houses owned by various Departments; the construction of 100 houses to be built under the provisions of the *Laporte Industrial Factory Agreement Act*, 1961–1965; the building of up to 30 homes a year until

1969–70 as part of the Broken Hill Proprietary Company's Agreement with the State to establish an integrated steel industry; and the erection of 128 houses at Exmouth as part of the support town and for personnel employed on the United States Navy V.L.F. radio station. The third block of flats for the accommodation of elderly ladies was completed in May 1966 and the Commission plans to build a further block during 1966–67 in the Fremantle area. The Commission will also build during 1966–67 two blocks of flats for single working women to encourage the various organisations to undertake similar projects themselves. To further assist religious and charitable organisations eligible under the Commonwealth Aged Persons Homes Act, the full architectural services of the Commission, which include plans, specifications, arranging of contracts and the carrying out of supervision during construction, have been provided free of cost. Up to 30 June 1966, 609 units had been completed.

The Commission administers building society legislation and the *Housing Loan Guarantee Act, 1957–1965*, under which the Government guarantees lenders of funds to building societies and other approved financial organisations making advances to families interested in owning their own home on low deposits, and at an interest rate not exceeding 6½ per cent per annum reducible.

Tasmania—The Housing Department. The Housing Department was established in July 1953 as a separate identity, and is responsible for administering that portion of the *Homes Act* 1935 which relates to the acquisition and development of land for housing purposes and the erection of homes for rental and ultimate sale, and the *Homes* (*Old Age Pensioners*') *Act* 1940. Housing Department construction utilises both day labour and private contractors to build houses on land developed by the Department. On-site construction is supported by the Department's factory, which incorporates joinery works, timber mill, plumbing and electrical workshops, material stores, and garage. Most of the dwellings constructed by the Department are three-bedroom timber dwellings. Roofing is usually corrugated iron. During 1965–66, 544 dwellings were completed. Construction since 1944 has comprised 9,566 dwelling units, of which 9,048 were single units (7,764 of timber), 200 were elderly persons' flatettes, 22 were maisonettes, and 296 were multi-unit flats. Of the total dwellings completed, 8,510 were three-bedroom, 849 two-bedroom and 207 one-bedroom.

Flats, maisonettes and elderly persons' homes are for rental only. Allottees of single unit dwellings are encouraged to acquire properties on purchase contract where this procedure is deemed to be for their benefit, and a majority take advantage of this opportunity. Some of these dwellings, however, are occupied on a rental basis. The rental of a newly erected three-bedroom timber house in the Hobart metropolitan area approximated $12.40 in the June quarter of 1966. In certain necessitous cases rental rebates are allowed and the Department is reimbursed by the State Treasury. Rebates on rentals of elderly persons' flatettes are graduated according to the incomes of the occupiers. Under the current rental rebate formula a married couple whose only income is the age pension pay $3.80, while a single person solely dependent on the pension pays $2 a week.

Allotments are made on a no-deposit purchase contract basis with repayments over a maximum term of fifty-three years, but allottees are encouraged to pay a deposit if they are in a position to do so. Purchase contracts are sometimes surrendered to the Department. Net of surrenders, 6,267 purchase contracts had been entered into by June 1966. The sale price, excluding land, of a new three-bedroom house in the Hobart metropolitan area was approximately $6,950 in the June quarter of 1966. Prices in the north and north-western areas were slightly lower. The weekly repayment instalment on a purchase contract is less than the weekly rent of a similar dwelling, as the latter includes a charge for maintenance, whereas a person on purchase contract is responsible for maintenance of the property.

Housing schemes in Commonwealth Territories

Northern Territory. In 1946 control of all government-owned residences in the Territory (excluding those belonging to the Defence Services or Commonwealth Railways, or attached to post offices) was vested in the Administration. The Administration provides houses for rental to officers and employees of the Commonwealth. The Northern Territory Housing Commission provides rental housing for persons of limited means who are not adequately housed and who are not officers of either the Commonwealth or the Northern Territory Public Service. The Commission was established in 1959 and operates under authority of the *Housing Ordinance* 1959–1966; to 30 June 1966 a total of 1,007 houses and flats had been completed; 713 of these are in Darwin (including 158 flats), 198 in Alice Springs, 45 in Katherine, and 51 in Tennant Creek. A further 209 houses and 24 flats were under construction.

Australian Capital Territory. The Commonwealth Government provides houses and flats for rental to persons employed in the Australian Capital Territory. At 30 June 1966 the Department of the Interior controlled 7,114 houses and 2,018 flats for rental purposes. Government rental houses may be purchased by tenants. From 1 July 1950 to 30 June 1966, 5,537 houses had been sold to tenants.

Papua and New Guinea. In 1960 the Administration, through the Commissioner for Housing, commenced a scheme for providing low-cost houses for rental and eventual sale where possible to indigenes, mixed race peoples and Asians. To 30 June 1966, 278 houses had been completed.

Summary of rental activities of government authorities

The following table shows the revenue from rental for dwellings under control of government housing authorities each year from 1961–62 to 1965–66.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS, STATES AND TERRITORIES, 1961–62 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld (a)	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 . .	13,150	11,098	3,582	6,794	4,152	1,090	404	3,196	43,466
1962–63 . .	14,232	11,410	3,966	7,504	4,384	1,122	500	3,522	46,640
1963–64 . .	16,112	12,024	4,372	8,788	4,792	1,234	622	3,712	51,656
1964–65 . .	17,414	13,322	4,732	9,184	5,177	1,266	654	3,536	55,285
1965–66 . .	18,930	13,918	5,459	9,440	5,532	1,344	820	3,400	58,843

(*a*) Excludes rentals in respect of tenanted temporary dwellings. (*b*) Excludes rentals in respect of temporary and emergency dwellings.

The following table shows the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year from 1961–62 to 1965–66.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT STATES AND TERRITORIES, 1961–62 TO 1965–66

Year	N.S.W. (a)	Vic.	Qld (b)	S.A. (c)	W.A.	Tas.	N.T.	A.C.T. (d)	Aust.
1961–62 . .	40,796	32,146	11,079	22,983	13,338	2,935	1,366	8,832	133,475
1962–63 . .	41,207	32,371	11,575	24,632	13,848	3,144	1,678	9,073	137,528
1963–64 . .	43,007	32,870	12,084	26,024	14,875	3,230	1,752	9,143	142,985
1964–65 . .	44,994	33,541	12,605	27,113	15,394	3,238	2,166	9,054	148,105
1965–66 . .	47,407	33,995	13,439	27,632	16,639	3,283	2,398	9,073	153,866

(*a*) Excludes tenants of 'aged units'. (*b*) Excludes tenanted temporary dwellings. (*c*) Excludes temporary and emergency dwellings. (*d*) Number of occupied dwellings at 30 June.

Advances to home purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the State or Commonwealth Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to home purchasers and loans to contract builders, etc., are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on. While figures of all loans to home purchasers are not available, the institutions mentioned account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

State authorities and agencies

New South Wales

Rural Bank of New South Wales—Sale of Homes Agency. A Sale of Homes Agency was established in 1954 within the Rural Bank's Government Agency Department to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales. The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954–55 and 1955–56. The sales were made on the basis of 10 per cent deposit and repayment of the balance over a maximum period of forty years, with interest at 4½ per cent per annum. Total advances under that scheme amounted to $646,648; at 30 June 1966 the advances outstanding amounted to $403,796 in respect of 85 houses.

Since 1956 the Sale of Homes Agency has acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the 1956 and 1961 Commonwealth-State Housing Agreements. These houses are sold, in general at the Bank's valuation, to persons who have satisfied the Commission as to their housing needs and have registered as prospective purchasers. The terms of sale provide for a minimum deposit of $100 and repayment of the balance over a maximum period of forty-five years, with interest rates, since the inception of the scheme, ranging from 4¼ to 5⅛ per cent per annum. The cash deposits and periodical instalments payable by purchasers are collected by the Agency as agent for the Commission. Particulars of the advances made by the Agency in connection with the sale of houses erected under the 1956 and 1961 Agreements are given in the following table.

RURAL BANK OF NEW SOUTH WALES—SALE OF HOMES AGENCY: ADVANCES FOR HOMES SOLD UNDER THE 1956 COMMONWEALTH—STATE HOUSING AGREEMENT, TO 1965–66

Year	Advances during year		Advances outstanding at end of year(*a*)	
	Number of houses	Amount	Number of houses	Amount
		$'000		$'000
1956–57 . .	1,604	10,158	1,604	9,952
1957–58 . .	3,012	19,966	4,612	29,430
1958–59 . .	2,013	12,652	6,623	41,616
1959–60 . .	2,227	14,400	8,831	55,384
1960–61 . .	1,565	10,436	10,364	64,974
1961–62 . .	1,826	13,074	12,129	77,016
1962–63 . .	1,825	13,504	13,830	88,974
1963–64 . .	957	7,362	14,568	94,178
1964–65 . .	1,777	14,356	16,042	105,648
1965–66 . .	1,486	12,197	17,126	114,154

(*a*) Comprises principal outstanding and loan charges due but not paid.

Rural Bank of New South Wales—other loans. The Rural Bank of New South Wales provides assistance to individuals for the erection or purchase of homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The rate of interest on long-term loans for housing purposes is 5½ per cent per annum.

RURAL BANK OF NEW SOUTH WALES: ADVANCES FOR HOMES, 1956–57 TO 1965–66

Year	Advances during year(*a*)		Advances outstanding at end of year(*b*)	
	Number of dwellings	Amount	Number of dwellings	Amount
		$'000		$'000
1956–57 . .	1,372	5,702	18,098	36,342
1957–58 . .	1,576	6,980	17,644	39,190
1958–59 . .	1,176	5,444	16,915	40,424
1959–60 . .	1,610	8,052	16,611	43,934
1960–61 . .	2,032	10,800	17,096	50,564
1961–62 . .	1,668	11,316	17,357	56,422
1962–63 . .	2,014	13,084	18,017	62,762
1963–64 . .	2,434	15,148	18,972	68,790
1964–65 . .	2,613	18,250	19,936	76,450
1965–66 . .	1,406	11,699	19,577	76,286

(*a*) The number of advances during a year represents the number of dwellings in respect of which an advance was first made in the year, but the amount of advances includes subsequent advances made in respect of the dwellings. (*b*) The number of advances outstanding at the end of a year represents the number of dwellings on which a debt was still outstanding. The amounts shown comprise principal outstanding and loan charges due but not paid.

Victoria

Housing Commission, Victoria. Very few houses were sold by the Commission until 1954. The amendments to the Commonwealth-State Housing Agreement in 1955–56 have had the effect of substantially increasing the number of houses sold. Whereas between 1949 and 1954 only about 100 houses were sold, a total of 22,105 houses were sold on terms to 30 June 1966, the total value of terms sales exceeding $172 million. Until 1964–65 houses were sold on a minimum deposit of $200, but during that year provision was made to sell without deposit in very special circumstances. The maximum repayment term is forty-five years with interest currently at 4½ per cent.

An inducement to tenants of the Commission to purchase their homes was the introduction of a Death Benefit Scheme, to provide for the property under purchase to pass to the estate of the purchaser free of debt in the event of his death prior to completion of purchase. If application is made for admittance to the Death Benefit Scheme, the maximum period for repayment is reduced to thirty years, the rate of interest is fixed at 5¼ per cent and the contract must terminate before the purchaser's seventieth birthday.

Home Finance Trust. In 1956 a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants. Except in special circumstances, no loan will be granted if the borrower or spouse already owns a house in Victoria at the date of the proposed mortgage.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed ninety-five per cent of the value of the security (house and land) and are not made if the value of the security exceeds $10.600. The house must not have been erected more than two years before the date of the mortgage. Repayment of loans may be made over a maximum period of thirty years, with interest charges determined by the Trust. At 30 June 1966, 3,078 loans totalling $18,907,726 were outstanding.

In 1963 the Trust was empowered to make housing loans on the security of second mortgages subject to conditions similar to those applying to the first mortgage loans, except that the maximum term for repayment of a loan is ten years and no restriction is placed on the percentage of loan to valuation. At 30 June 1966, 1,373 second mortgage loans were outstanding, the amount involved being $1,310,130. The Trust was also empowered to make a loan to the trustees of a fund established to provide a home for a doctor or a dentist at a place located more than thirty miles from the City of Melbourne. There is no valuation limit or age limit of the dwelling in cases of this nature.

(*See* Savings Banks, page 293, for activities of the State Savings Bank of Victoria.)

Queensland

Queensland Housing Commission. The present maximum advance allowable under the Acts is $8,000 for a timber, brick veneer, brick, or concrete building. The rate of interest charged on new advances in 1965–66 was 5½ per cent per annum. Repayment may be made at the option of the borrower over either a thirty year or a forty-five year period. A borrower or purchaser who elects to repay over a thirty year period, who is under forty years of age, and who has passed a prescribed medical examination, is entitled to free life insurance cover to an amount sufficient to liquidate his indebtedness to the Commission in the event of his death before his loan has been fully repaid, provided that the maximum benefit payable under such insurance cover does not exceed $4,500.

Workers' dwellings. From 4 October 1962 the maximum advance under this scheme was increased to $7,000 for all types of workers' dwellings. This was increased to $8,000 from 2 June 1966. Total advances made for dwellings since operations commenced in 1910 to 30 June 1965 amounted to $62,679,089.

South Australia

South Australian Housing Trust Sales Scheme. A minimum deposit of $100 is required for houses under the Rental-Purchase Scheme for a loan, repayable at an interest rate of 4¾ per cent per annum over a period not exceeding forty years. Prospective purchasers of Housing Trust houses (other than rental-purchase houses) can arrange or have arrangements made for a first mortgage to be granted by a lending institution of their choice. In cases where the deposit and the first mortgage so raised are insufficient, the Trust may advance the balance of the house price by way of a second mortgage, the repayment term of which is a maximum of thirty years, interest being at the rate of 6 per cent per annum. During 1965–66 the Trust commenced 952 second mortgages valued at $1,014,000. At 30 June 1966 second mortgages totalled 8.388, and the balance outstanding at that date was $8,900,000.

State Bank of South Australia. The State Bank, together with the Housing Trust, is the principal agent of the State Government for the distribution through the Home Builders' Fund of moneys received under the Commonwealth-State Housing Agreement. During 1965–66 the Bank opened 1,744 new accounts worth $11,661,311 in the Home Builders' Fund. The balance of loans in this Fund outstanding at 30 June 1966 totalled $55,285,620. In addition, during 1965–66, $687,424 was advanced to the public under the Advances for Homes Act, 1928–1958 which is administered by the Bank on behalf of the State Government. Under this Act 123 new accounts were opened during 1965–66, leaving a balance outstanding at 30 June 1966 of $26,712,650. The present maximum housing loan under either of these schemes is $7,000, repayable over a period not exceeding fifty years at a rate of interest of 5½ to 6 per cent per annum calculated on monthly balances. Persons who have received benefit under either of these schemes are ineligible for another mortgage.

Western Australia

State Housing Commission of Western Australia. Under the State Housing Act and the Commonwealth-State Housing Agreement the maximum loan is $6,000 by way of mortgage, while under contract of sale the maximum is $5,800 on the building plus the value of the land in the Metropolitan Area, and greater amounts in rural areas, depending on the circumstances. For houses built north of the twenty-sixth parallel the Minister may approve of a larger advance.

To proceed under the mortgage conditions, a deposit of not less than 10 per cent is required, but under contract of sale the deposit may be as low as $200 including the ingoing fees or less when circumstances warrant. The interest rate on all advances is 5⅜ per cent per annum and the repayment period is forty-five years. The income eligibility figure varies according to the movement of the basic wage, and as at the basic wage adjustment on 2 May 1966 an applicant in the Metropolitan Area cannot have an income exceeding $2,600 a year, plus $50 for each dependent child under sixteen years of age. For the country the corresponding amount is $3,115 per annum plus $50 for each dependent child under sixteen years, and north of the twenty-sixth parallel the Minister may allow families with an income of up to $4,181 to be given financial assistance. Purchases under both the State Housing Act and Commonwealth-State Housing Agreements are covered by a free Death Benefit Scheme whereby in the event of the death of the bread winner the outstanding debt is reduced by an amount of up to $1,000 (the amount of the reduction depends on the age at date of death) plus $200 for each dependent child under sixteen years of age. A second-mortgage scheme exists under the State Housing Act which provides that assistance be limited to those applicants who are building or purchasing new homes, the cost of which, excluding land, does not exceed $7,000. The Commission limits the second mortgage to a maximum of $2,000.

(*See* Savings Banks, page 294, for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia.)

Tasmania

Housing Department. The interest rate on purchase contract loans from the Housing Department signed after 1 May 1965 was 4¼ per cent, immediately prior to which the rate was 4 per cent. To be eligible for a house on purchase contract terms, an applicant must be married or about to be married, or have dependants for whom it is necessary to provide a home. Number of dependants, income, and existing accommodation are considered in determining applicants' priority. The number of loans outstanding at 30 June 1966 was 5,781, and the amount outstanding $37,452,000.

Agricultural Bank of Tasmania. The Agricultural Bank, as an approved institution under the Commonwealth-State Housing Agreement, receives part of those funds allocated for advances to home builders. Prior to the commencement of the agreement, the Bank borrowed from the State Loan Fund and from private institutions. To be eligible for a loan, an applicant must be married or about to be married and be over the age of twenty-one, and when, as is usual, the advance is required to build a house, the applicant must own a block of land. The maximum amount of an advance to an applicant is $8,000 for all types of houses in certain areas, provided that the total advance does not exceed ninety per cent of the Bank's valuation of land and dwelling. Advances to borrowers are repayable by equated instalments over forty years. Advances made as from 1 July 1965 were at an interest rate of 5¾ per cent, immediately prior to which the rate was 5½ per cent.

During 1965-66, 214 advances were approved, valued at $1,480,000. Since November 1945 a total of 3,177 loans amounting to $18,394,000 have been approved, of which 2,759 have been for erection of dwellings and 418 for the purchase of existing homes. Total advances outstanding at 30 June 1966 amounted to $14,106,000. These figures exclude advances to building societies.

Commonwealth authorities and Territories

Department of Housing

In December 1963 the Department of Housing was created and to it were transferred the functions and staff of the War Service Homes Division and the Housing and Building Industry Branch of the Department of National Development. Further details relating to the Department of Housing may be found on page 83 of Year Book No. 50.

War service homes

The maximum amount of loan or advance which may be granted under the *War Service Homes Act* 1918–1966 is $7,000. The period of repayment may be up to forty-five years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of fifty years.

The following table gives details of advances under the War Service Homes Act in each State and Territory of Australia, and the Territories of Papua, New Guinea and Norfolk Island, for the years 1956–57 to 1965–66. (*See* tables on pages 280–1 for the number of homes provided.)

WAR SERVICE HOMES ACT: ADVANCES FOR HOUSING, STATES AND TERRITORIES, 1956-57 TO 1965-66

Period or date	N.S.W. (*a*)	Vic.	Qld (*b*)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
TOTAL CAPITAL ADVANCED DURING YEAR ($'000)									
1956–57	22,596	19,360	4,642	4,792	7,090	1,368	12	482	60,342
1957–58	28,026	22,180	4,596	5,796	7,782	1,602	32	350	70,364
1958–59	31,026	21,748	5,430	4,850	5,168	1,780	30	286	70,318
1959–60	29,914	21,954	5,974	4,684	5,776	1,456	36	342	70,136
1960–61	32,330	18,040	6,422	4,792	6,980	1,224	44	252	70,084
1961–62	26,314	20,526	8,922	5,316	7,000	1,400	32	540	70,050
1962–63	27,200	21,000	9,900	6,470	7,960	1,550	30	910	75,020
1963–64	25,502	21,300	8,100	5,078	6,770	1,584	22	660	70,016
1964–65	27,680	19,874	8,540	5,510	6,500	1,486	2	512	70,104
1965–66	27,052	19,716	9,667	6,172	5,310	1,562	28	503	70,010
NUMBER OF SECURITIES IN FORCE									
At end of June—									
1957	29,312	34,461	17,332	12,527	12,634	2,703	30	457	109,456
1958	34,081	37,446	17,835	13,119	13,442	2,932	32	512	119,399
1959	38,512	40,181	18,369	13,522	14,090	3,116	34	548	128,372
1960	43,029	42,913	18,876	13,897	14,856	3,259	41	603	137,474
1961	47,713	45,275	19,572	14,371	15,886	3,364	49	640	146,870
1962	51,445	47,827	20,712	14,947	16,806	3,538	53	710	156,038
1963	54,409	49,740	21,644	15,481	17,551	3,676	55	817	163,373
1964	56,619	51,188	22,237	15,718	18,005	3,827	57	872	168,523
1965	58,899	52,493	22,698	16,008	18,348	3,889	51	927	173,313
1966	61,050	53,839	23,397	16,457	18,579	4,005	52	975	178,354
VALUE OF ADVANCES OUTSTANDING ($'000)									
At end of June—									
1957	111,740	126,832	57,770	43,824	47,006	9,620	(*c*)	(*d*)	396,792
1958	136,338	145,384	60,412	48,358	54,584	10,782	(*c*)	(*d*)	455,858
1959	166,038	162,478	63,886	51,648	59,008	12,260	(*c*)	(*d*)	515,318
1960	192,586	178,760	67,384	54,468	63,286	13,246	(*c*)	(*d*)	569,730
1961	219,150	190,624	71,438	57,506	68,734	14,036	(*c*)	(*d*)	621,488
1962	239,702	205,290	78,146	61,020	73,994	14,894	(*c*)	(*d*)	673,046
1963	260,236	219,662	85,324	65,470	79,460	15,958	(*c*)	(*d*)	726,110
1964	278,856	233,648	90,326	67,900	83,364	16,976	(*c*)	(*d*)	771,070
1965	297,244	244,726	95,076	70,564	86,458	17,798	(*c*)	(*d*)	811,866
1966	313,915	255,695	100,938	74,117	88,513	18,684	(*c*)	(*d*)	851,862

(*a*) Includes Norfolk Island. (*b*) Includes Territory of Papua and New Guinea. (*c*) Included in South Australia. (*d*) Included in New South Wales.

Northern Territory

Loans Scheme. This scheme was commenced in 1953 and is administered by the Home Finance Trustee under the *Housing Loans Ordinance* 1949–1966. Advances may be made for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. Loans are provided on a deposit of 5 per cent of the first $4,000 and 10 per cent of the balance of the Commissioner's valuation up to a maximum of $7,000. The rate of interest charged is 6 per cent per annum reducible to 5 per cent per annum if instalment payments are made by the due date. The maximum period of repayment is forty-five years. Up to 30 June 1966, 1,137 loans totalling $6,340,440 had been approved. These were for: erection, 723; purchase, 320; enlargement or completion, 43; discharge of mortgage, 51.

Sales Scheme. Tenants of government-owned houses under the control of the Administration may purchase the dwellings they occupy, either for cash or on terms requiring a minimum deposit of 5 per cent of the first $4,000 and 10 per cent of the balance of the purchase price with repayments over a maximum period of forty-five years including interest at 4½ per cent per annum.

Housing Commission Sales Scheme. Since the November 1963 amendment of the *Housing Ordinance* 1959–1966 the Housing Commission has been permitted to sell its houses to tenants in occupation. The terms require a minimum cash deposit of $200 and repayment of the remainder of the loan over a period not exceeding forty-five years; there is no prescribed limit to the amount of the loan and the rate of interest is to be fixed by the Commission from time to time.

Australian Capital Territory

Loans may be granted by the Commissioner for Housing to enable persons to purchase or build a new house in the Australian Capital Territory. Where the Commissioner's valuation does not exceed $4,000, the maximum loan may not exceed ninety-five per cent of the valuation. If the Commissioner's valuation exceeds $4,000, the maximum loan is ninety-five per cent of the first $4,000 and ninety per cent of the balance (but in no case can the amount lent exceed $7,000). Repayment may be made over a maximum period of forty-five years. The current rate of interest is 5¾ per cent per annum with a concession of 1 per cent for payments made on or before the due date. At 30 June 1966, 3,539 houses were under mortgage to the Commissioner.

Government rental houses may be purchased by tenants. The basis of the sale is a minimum deposit of 5 per cent of the purchase price fixed by the Department of the Interior with no limit to the amount which may be held on mortgage from the Department. Repayment of the amount covered by mortgage may be made over a maximum period of forty-five years. The interest rate is 5¾ per cent per annum with a concession of 1 per cent for payments made on or before the due date. To 30 June 1966, 5,537 houses had been sold to tenants.

Papua and New Guinea

Under authority of the *Housing Loans Ordinance* 1953–1963 the Commissioner for Housing may make advances to any member of the community for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. The maximum loan is $7,000. The maximum period of repayment is twenty-five years. Minimum cash deposit is 5 per cent of the first $4,000 plus 10 per cent of the remainder of the Commissioner's valuation. The effective rate of interest is 5 per cent per annum. Up to 30 June 1966, 340 loans totalling $1,770,510 had been approved.

Savings banks

All savings banks lend funds for housing to both individuals and building societies. Separate figures of loans to individuals are not available for all savings banks. The amounts outstanding on housing loans of all savings banks (including loans to building societies) were $998 million, $1,186 million and $1,359 million at the end of June 1964, 1965 and 1966 respectively. Some details in respect of three savings banks are shown below.

State Savings Bank of Victoria. The Bank grants long-term loans to depositors to enable them to build, purchase or improve homes. These loans are granted by both the Crédit Foncier and Savings Bank Departments.

The maximum proportion of valuation to be granted as Crédit Foncier loan is eighty per cent and the maximum loan is $7,000. Interest is 5 per cent and the term of the loan is ten years, subject to renewal. The maximum proportion of valuation granted as Savings Bank Department loan is seventy-five per cent and the maximum loan is $10,000. The interest rate is 5¾ per cent if the property is occupied by the borrower and 6¼ per cent in other cases. The term of the loan is three years, subject to renewal. During the year 1965–66 the Bank advanced $53,045,536 to 9,288 borrowers in addition to $698,439 to Co-operative Housing Societies and $200,000 to the Home Finance Trust. At 30 June 1966 the total debt of 56,795 individual borrowers was $261,884,846 while indebtedness of Co-operative Housing Societies and the Home Finance Trust amounted to $17,647,467 and $8,668,074 respectively.

Savings Bank of South Australia. The Bank grants mortgage loans for the building or purchase of houses for personal occupation, the maximum loan available being $8,000 for all types of homes. Normally advances are made up to 85 per cent of the Bank's valuation but, if the loan is granted under the Homes Act, 1941–1962, 95 per cent of such valuation may be advanced (maximum loan, $6,000). The maximum loan period is thirty years at a rate of interest of 5¼ per cent per annum; this rate is subject to review after five years. During 1965–66 the Bank advanced $17,266,781 by way of housing loans, the number of new loans totalling 2.507. At 30 June 1966 there were 23,266 loans current with a balance outstanding of $103,330,000.

Rural and Industries Bank of Western Australia (*Savings Bank Division*). The Rural and Industries Bank of Western Australia is authorised by the *Rural and Industries Bank Act, 1944–1958* to make loans from moneys on deposit with its Savings Bank Division to a person or body for the purchase or erection of a dwelling. It is the policy of the Bank to provide funds for housing primarily for occupancy by the borrower. There is no fixed limit on the amount of a loan. The average loan in the case of a brick or timber house is $7,000. The rate of interest varies with the current bank rate and is usually ¾ per cent lower. The rate at 30 June 1966 was 5½ per cent. The average term of housing loans is twenty-two years.

Trading banks

Apart from loans by certain State banks as Government agencies (*see* pp. 288–91) advances for housing to individuals are also provided by the trading banks. Amounts outstanding in respect of advances to individuals for housing purposes made by the major trading banks were $230 million on the second Wednesday of July 1966 (*see* the chapter Private Finance for further details).

Life insurance companies

The life insurance companies are another source of funds for housing. Details of new loans made during 1963, 1964, 1965 and 1966 (statistics for years prior to 1963 are not available) are given in the following table.

LIFE INSURANCE COMPANIES: HOUSING LOANS PAID OVER, STATES AND TERRITORIES, 1963 TO 1966

State or Territory	Amount ($'000)			
	1963	1964	1965	1966
New South Wales	20,572	21,082	24,176	23,536
Victoria	13,152	16,176	18,642	16,492
Queensland(*a*)	3,430	4,480	5,753	5,299
South Australia(*b*)	3,368	3,744	5,108	4,347
Western Australia	2,262	2,964	3,778	3,730
Tasmania	1,418	1,546	1,547	1,394
Australian Capital Territory	340	594	869	874
Total	**44,542**	**50,586**	**59,873**	**55,672**

(*a*) Includes loans made in Papua and New Guinea. (*b*) Includes loans made in Northern Territory.

Amounts outstanding at the end of June 1964, 1965 and 1966 in respect of housing loans made by insurance companies were $323 million, $339 million and $356 million respectively.

Registered building societies

There are 3,443 registered building societies in Australia, of which 122 are permanent societies and the remainder terminating societies. The permanent societies are in the main investment societies which make loans for housing purposes, usually on crédit foncier terms, and obtain their funds from share capital deposits and borrowings from banks and other lending institutions. The terminating societies are co-operative societies which make loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions, and, since 1956, from moneys provided under the Commonwealth-State Housing Agreements. Details of new loans granted and net advances outstanding for each of the years ended June 1960 to 1965 are given in the following table (*see also* the chapter Private Finance).

REGISTERED BUILDING SOCIETIES, STATES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
LOANS GRANTED DURING YEAR ($'000)							
1960–61 . .	47,404	(*a*) 9,274	10,836	2,424	5,726	2,620	(*a*) 78,284
1961–62 . .	48,738	28,856	12,646	2,246	6,346	2,988	101,820
1962–63 . .	53,446	29,842	13,164	2,834	8,904	4,048	112,238
1963–64 . .	72,284	30,878	13,184	3,102	11,700	6,000	137,148
1964–65 . .	82,329	37,007	16,550	3,819	13,477	6,728	159,910
NET ADVANCES OUTSTANDING(*b*) AT END OF YEAR ($'000)							
1960–61 . .	269,780	165,424	33,488	9,994	20,506	10,636	509,828
1961–62 . .	292,898	175,160	41,272	11,114	25,158	12,210	557,812
1962–63 . .	317,222	189,466	48,776	12,532	31,240	14,466	613,702
1963–64 . .	351,840	199,702	55,542	13,966	39,168	17,800	678,018
1964–65 . .	393,344	214,288	64,449	15,790	47,836	21,413	757,121

(*a*) Excludes Victorian co-operative housing societies. (*b*) Net of borrowing members' funds.

Other lenders

Little information is available on advances made by other lenders such as superannuation and other trust funds, private finance and investment companies, etc. In South Australia advances on first mortgage made by the South Australian Superannuation Fund are granted under the Homes Act, 1941-1962, by which the State Government guarantees up to 25 per cent of the value of the mortgage, thus raising the limit of the advance. Loans so made are limited to 95 per cent of the Superannuation Board's valuation to a maximum of $6,000, or 85 per cent of the Board's valuation to a maximum of $7,000. The rate of interest is 6 per cent per annum, calculated on quarterly balances, reducing to 5½ per cent when payments are made within a prescribed period of twenty-one days from the end of the quarter. The term of the mortgage may run for thirty years on a stone or brick home or twenty years on a timber-framed construction. Trustee mortgages may be granted as an alternative to the foregoing. A maximum of 70 per cent of the Board's valuation may be granted for a trustee mortgage, other conditions being those applicable to mortgages granted under the Homes Act. At 30 June 1966 there were 5,442 loans current, the principal outstanding totalling $22,028,237. During 1965–66 the value of advances made was $3,742,272.

CHAPTER 11

LABOUR, WAGES AND PRICES

For particulars of the Farm Production Price Index, *see* the chapter Miscellaneous. For current information on the subjects dealt with in this chapter, *see* the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the *Quarterly Summary of Australian Statistics*, also the mimeographed statements *Wage Rates and Earnings*, *Consumer Price Index*, *Wholesale Price* (*Basic Materials and Foodstuffs*) *Index*, *Wholesale Prices—Price Index of Electrical Installation Materials*, and *Export Price Index*. For further information on these subjects, except the Export Price Index, *see* the *Labour Report* issued by this Bureau.

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 have been collected by the Commonwealth Statistician, and in some cases were recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 and comparable information was ascertained for the month of November in each year from 1914 to 1922. The range of items for which retail prices data are obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in current periods are published in the annual *Labour Report*.

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes then current. Previous retail price indexes for Australia are briefly described below. The current retail price index, entitled the Consumer Price Index, was published for the first time in August 1960. It was compiled retrospectively to 1948–49. A description of the Consumer Price Index is given on pages 298–9.

Previous retail price indexes

Five series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were as follows.

(i) *The 'A' Series Index* (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June 1938.

(ii) *The 'B' Series Index* (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December quarter 1953. It was the food and rent constituent of the 'C' Series Index and was designed to replace the 'A' Series Index for general statistical purposes.

(iii) *The 'C' Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, and some other miscellaneous items) was first compiled in 1921. It was last issued on its original basis for December quarter 1960. For certain transitional purposes a 'C' Series Index was issued for some quarters after that. This was calculated by varying the index numbers of December quarter 1960 in proportion to movements shown by the Consumer Price Index.

(iv) *The 'D' Series Index*, derived by combining the 'A' and 'C' Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May 1933 to May 1934 and then discontinued.

(v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some miscellaneous items) was first compiled in 1954 with the year 1952–53 as base = 100. As its title indicated, it was constructed as a transitional index. Its compilation was discontinued following its replacement by the Consumer Price Index in June quarter 1960.

An index of retail price movements from 1901 to 1966 is shown on page 303 of this Year Book. It is derived by linking together successive indexes (the 'A' Series, the 'C' Series and the Consumer Price Index) available for that period.

In 1937 the Commonwealth Court of Conciliation and Arbitration introduced a 'Court' Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court the 'Court' Index ceased to be issued by the Industrial Registrar as at December quarter 1953. These 'Court' Index numbers were an arithmetical conversion of the 'C' Series Retail Price Index.

Consumer Price Index

This retail price index was first compiled in 1960, retrospectively to September quarter 1948. A full description of the index is given in *Labour Report* No. 52, 1965 and 1966.

Origin

The list of component items and the weighting pattern of the 'C' Series Retail Price Index, first adopted in 1921, were slightly revised by Conference of Statisticians in 1936, but otherwise continued almost unchanged until the index was discontinued in 1960. The reasons for this, and the circumstances which led to the present Consumer Price Index, appear from ensuing paragraphs.

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and in the pattern of expenditure. This rendered changes desirable but made it impracticable either to produce a new index, or to revise the old one, on any basis that would render the index more representative than it already was of the changing pattern of household expenditure in those years.

When commodity rationing had virtually ceased in the latter part of 1948 action was taken by the Statistician to collect price data of about 100 additional items and to gather information as to current consumption and expenditure patterns. This was done to facilitate review of the component items and weighting system of the 'C' Series Retail Price Index in the light of the new pattern of wage-earner expenditure and consumption that appeared to be emerging. But there supervened, in the next few years, conditions which caused wide price dispersion coupled with a very rapid rise in prices and a new sequence of changes in consumption and in the pattern of wage-earner expenditure. Under these conditions it was not possible to devise any new weighting pattern likely to be more continuously representative of conditions then current than was the existing 'C' Series Retail Price Index on the 1936 revision.

A Conference of Statisticians considered the matter in June 1953, and resolved (in part) as follows:

'(*a*) that, in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period it is undesirable to make a general revision of the list of items and weighting system of the 'C' Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes;

'(*b*) that an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure.'

The 'C' Series Index continued to be compiled on its pre-war basis without significant change in procedures. The Interim Retail Price Index was introduced in 1954 and continued until March quarter 1960.

The Interim Index was a transitional index designed to measure retail price variations on the 'C' Series model in terms of post-war consumption weights as emerging in the early 1950's. It embraced a wider range of commodities and services than did the 'C' Series Retail Price Index, but it did not take into account successive major changes in the pattern of expenditure and modes of living that began to occur early in 1950 and through to 1960. These changes could not, in fact, be detected and measured promptly, and incorporated into an index concurrently with their happening. Nor was it envisaged as desirable to adopt fundamentally new procedures in price index construction until it was fully evident that far-reaching procedural changes were necessary to meet the situation that had developed between about 1950 and 1960.

In this period home-owning largely replaced house-renting, the use of the motor car greatly increased and partly replaced use of public transport, and various items of electrical household equipment and television came into widespread use. The impact of these (and other) changes in usage upon the pattern of household expenditure was heightened by disparate movements in prices. Together, they rendered nugatory the attempt to meet the situation by devising a single Interim Retail Price Index. As studies progressed and new data became available, it was clear that no single list of items and no single set of fixed weights would be adequately representative as a basis for measuring retail price changes at all times throughout the post-war period. In consequence, the situation was met by compiling the Consumer Price Index constructed as a chain of linked indexes with significant changes in composition and weighting effected at short intervals.

Purpose, scope and composition

The Consumer Price Index is a quarterly measure of variations in retail prices for goods and services representing a high proportion of the expenditure of wage-earner households. The weighting pattern relates to estimated aggregates of wage-earner household expenditures and not to estimated expenditures of an 'average' or individual household of specified size, type, or mode of living. In this way it is possible to give appropriate representation to owner-occupied houses as well as rented houses and to include motor cars, television sets, and other major expenditures which relate to some households and not to others.

Consumer (retail) price indexes are sometimes loosely called 'cost of living indexes' and are thought to measure changes in the 'cost of living'. Neither the Consumer Price Index, nor any other retail price index, measures those changes in the cost of living that result directly from changes in the mode or level of living. Changes of that kind are matters for consideration apart from price indexes, but the change in prices of goods and services is a very important part of the change in the cost of living and this part is measured by consumer (retail) price indexes.

The Consumer Price Index covers a wide range of commodities and services arranged in the following five major groups:

Food;
Clothing and Drapery;
Housing;
Household Supplies and Equipment;
Miscellaneous.

These groups do not include every item of household spending. It is both impracticable and unnecessary for them to do so. Prices are collected regularly for specified quantities and qualities of a large and representative selection of commodities and services. Movements in the prices of these items, when combined in suitable proportions, provide a representative measure of price change as affecting a high proportion of the expenditure of wage-earner households.

Structure—a chain of linked indexes

Substantial changes have occurred in consumer usage and patterns of expenditure since the 1939–45 War. In order to keep the weighting pattern representative of current expenditures it has been necessary to construct indexes with additional items and changes in the weighting pattern at intervals, rather than on the basis of a list of items and set of weights that remained unchanged throughout the whole period covered. For the six State capital cities five series for short periods (namely, from the September quarter of 1948 to the June quarter of 1952, from the June quarter of 1952 to the June quarter of 1956, from the June quarter of 1956 to the March quarter of 1960, from the March quarter of 1960 to the December quarter of 1963, and from the December quarter of 1963 onwards) have therefore been constructed and linked to form a continuous retail price index series known as the Consumer Price Index. (For information regarding these links for Canberra *see Labour Report* No. 52, 1965 and 1966.)

During each period between links the items and weighting remained unchanged. At times of linking the weighting pattern was altered and new items (mainly ones that had become significant in household expenditure) were introduced. Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the index.

Tabular statements of Retail Price Index numbers

Consumer Price Index

The index has been compiled for each quarter from September quarter 1948, and for each year from 1948–49. 'All Groups' index numbers and 'Group' index numbers for each of the five major groups are compiled and published regularly for the six State capital cities separately and combined, and for Canberra. The reference base for each of these indexes is: year 1952–53 = 100.0. Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

Index numbers for each quarter are first issued in mimeographed statistical bulletins available from the Commonwealth Statistician about three weeks after the end of the quarter. These bulletins contain comment on the index and on significant price movements in that quarter. Tables showing index numbers for preceding quarters and years are presented.

The following table shows Consumer Price Index Numbers (Total All Groups) for the six State capital cities separately and combined and for Canberra, for periods from the year 1949–50.

CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS

SIX STATE CAPITAL CITIES AND CANBERRA, YEARS 1949-50 TO 1965-66 AND QUARTERS MARCH 1964 TO DECEMBER 1966

(*Base of each index: year* 1952–53 = 100.0) (*a*)

The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

Period	State Capital Cities—separately and combined							Canberra
	Six State Capital Cities(*b*)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	
Year—								
1949–50	66.0	65.6	66.2	67.1	66.2	66.2	64.7	65.1
1950–51	74.6	74.5	74.6	75.1	74.7	74.4	73.3	74.0
1951–52	91.4	91.9	91.0	91.8	91.4	90.4	90.4	91.1
1952–53	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1953–54	102.0	101.6	102.0	102.0	102.3	103.0	105.0	102.9
1954–55	102.6	102.3	102.0	102.9	103.5	105.2	104.9	104.2
1955–56	106.9	105.7	108.1	106.3	106.9	107.9	110.2	107.8
1956–57	113.1	112.9	114.0	112.0	111.1	112.9	116.9	113.3
1957–58	114.2	114.5	114.4	114.4	111.9	113.6	117.0	114.0
1958–59	116.0	115.3	116.6	118.2	114.5	114.7	118.7	115.4
1959–60	118.9	117.8	120.0	121.2	118.0	116.9	120.8	117.8
1960–61	123.8	122.1	125.9	125.4	122.9	121.2	127.5	121.4
1961–62	124.3	122.6	126.3	127.3	122.5	121.6	128.1	123.1
1962–63	124.5	123.2	126.2	127.7	122.1	122.2	128.0	123.4
1963–64	125.7	124.5	127.1	129.0	123.5	123.8	129.4	124.3
1964–65	130.4	128.8	132.2	133.9	128.6	127.6	133.6	128.1
1965–66	135.2	133.1	137.1	140.4	132.7	132.5	138.3	131.9
Quarter—								
1964—March	125.8	124.6	127.1	129.2	123.5	124.2	129.8	124.2
June	127.0	125.8	128.3	130.2	125.1	125.3	130.1	125.1
September	128.5	127.3	129.6	131.9	126.9	126.6	131.7	126.6
December	130.0	128.4	131.8	133.4	128.6	126.6	133.4	128.0
1965—March	130.9	129.1	132.9	134.6	128.9	128.0	134.0	128.4
June	132.1	130.3	134.4	135.7	129.9	129.3	135.2	129.5
September	133.5	131.8	135.6	138.3	130.7	130.0	137.0	130.8
December	135.2	133.3	137.2	140.0	132.7	131.7	138.8	132.3
1966—March	135.4	133.3	137.2	141.4	133.1	132.8	138.1	132.0
June	136.5	134.0	138.5	141.7	134.4	135.3	139.3	132.4
September	137.1	134.7	139.1	142.5	135.0	136.3	139.2	133.0
December	138.4	136.2	140.1	143.6	136.5	136.9	140.1	134.0

(*a*) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.
(*b*) Weighted average.

The following table shows Consumer Price Index Group Index Numbers for the six State capital cities combined for periods from the year 1949–50.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS

WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES, YEARS 1949–50 TO 1965–66 AND QUARTERS MARCH 1962 TO DECEMBER 1966

(*Base of each index: year* 1952–53 = 100.0) (*a*)

Period	Food	Clothing and Drapery	Housing	Household Supplies and Equipment	Miscellaneous	All Groups
Year—						
1949–50 . .	58.6	67.4	76.1	71.1	69.6	66.0
1950–51 . .	68.6	77.8	81.0	78.1	76.3	74.6
1951–52 . .	89.9	93.5	89.1	92.9	92.3	91.4
1952–53 . .	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1953–54 . .	103.5	100.7	104.8	101.6	99.9	102.0
1954–55 . .	104.3	101.0	108.4	101.4	99.9	102.6
1955–56 . .	110.2	102.0	115.1	101.6	105.9	106.9
1956–57 . .	115.3	103.9	122.1	105.8	118.0	113.1
1957–58 . .	113.3	107.0	127.3	107.5	119.7	114.2
1958–59 . .	115.4	108.2	130.6	108.7	121.2	116.0
1959–60 . .	119.8	109.4	135.2	109.8	123.9	118.9
1960–61 . .	127.7	111.6	144.8	111.2	127.3	123.8
1961–62 . .	125.5	112.8	150.7	112.7	128.1	124.3
1962–63 . .	124.3	113.2	155.0	112.4	128.8	124.5
1963–64 . .	126.0	114.0	159.6	111.0	129.9	125.7
1964–65 . .	133.0	115.6	165.0	111.9	136.1	130.4
1965–66 . .	139.3	117.0	171.9	113.8	142.5	135.2
Quarter—						
1962—March .	124.7	112.9	151.0	112.7	128.0	124.1
June . .	123.7	112.9	152.6	112.8	128.2	124.0
September .	124.2	113.0	153.3	112.8	128.4	124.3
December .	124.3	113.2	154.7	112.4	128.7	124.4
1963—March .	124.1	113.2	155.3	112.1	129.0	124.5
June . .	124.5	113.4	156.8	112.4	129.2	124.9
September .	125.0	113.7	157.9	110.6	129.7	125.1
December .	124.5	113.7	159.0	110.8	129.5	125.0
1964—March .	126.0	113.8	159.9	111.1	130.1	125.8
June . .	128.5	114.6	161.7	111.4	130.3	127.0
September .	130.7	115.0	163.0	110.7	133.1	128.5
December .	132.1	115.4	164.4	111.3	136.5	130.0
1965—March .	133.1	115.8	165.3	112.5	137.3	130.9
June . .	135.9	116.3	167.2	112.9	137.3	132.1
September .	139.3	116.3	168.6	113.4	137.8	133.5
December .	139.5	116.6	171.4	113.7	142.7	135.2
1966—March .	138.4	116.9	172.4	113.7	144.7	135.4
June . .	139.8	118.0	175.3	114.5	144.8	136.5
September .	139.7	118.2	176.6	114.7	146.9	137.1
December .	140.7	119.3	178.4	115.1	148.9	138.4

(*a*) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

The following table shows Consumer Price Index Group Index numbers for each State capital city and for Canberra for recent years and quarters.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS

SIX STATE CAPITAL CITIES AND CANBERRA, YEARS 1948-49 TO 1965-66 AND QUARTERS MARCH TO DECEMBER 1966

(*Base of each index: year* 1952-53 = 100.0) (*a*)

The index numbers hereunder are designed to measure movements in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities.

City	Year—						1966			
	1948-49	1952-53	1962-63	1963-64	1964-65	1965-66	Mar. qtr	June qtr	Sept. qtr	Dec. qtr
FOOD GROUP										
Six State Capitals(*b*)	54.1	100.0	124.3	126.0	133.0	139.3	138.4	139.8	139.7	140.7
Sydney	52.2	100.0	121.1	122.6	129.6	136.2	135.6	135.5	136.4	137.6
Melbourne	54.9	100.0	126.0	127.2	133.9	139.5	138.0	139.9	138.5	139.6
Brisbane	56.4	100.0	129.8	133.1	141.5	150.9	151.7	151.1	151.0	152.8
Adelaide	56.1	100.0	126.0	129.1	136.6	141.2	140.0	143.3	143.4	144.3
Perth	55.0	100.0	123.9	125.4	130.5	136.6	135.8	142.1	143.1	140.9
Hobart	56.0	100.0	127.2	128.8	134.5	141.4	140.0	142.2	140.9	141.3
Canberra	51.9	100.0	122.3	123.2	129.4	135.4	134.7	134.8	135.5	137.6
CLOTHING AND DRAPERY GROUP										
Six State Capitals(*b*)	58.4	100.0	113.2	114.0	115.6	117.0	116.9	118.0	118.2	119.3
Sydney	58.0	100.0	111.8	112.5	114.2	115.6	115.5	116.6	116.9	118.0
Melbourne	58.6	100.0	114.4	115.2	116.8	118.1	118.1	119.1	119.2	120.4
Brisbane	59.2	100.0	117.0	117.8	119.5	121.0	120.9	122.2	122.4	123.4
Adelaide	58.3	100.0	111.7	112.8	114.4	115.5	115.6	116.2	116.8	118.0
Perth	59.6	100.0	112.0	112.8	114.1	115.4	115.4	116.5	116.6	117.8
Hobart	58.0	100.0	114.5	115.1	116.7	117.9	117.9	118.9	118.9	120.1
Canberra	57.8	100.0	111.0	111.5	113.1	114.4	114.5	115.4	115.7	116.6
HOUSING GROUP										
Six State Capitals(*b*)	72.5	100.0	155.0	159.6	165.0	171.9	172.4	175.3	176.6	178.4
Sydney	74.2	100.0	153.4	160.1	166.6	172.3	172.6	176.7	178.0	179.6
Melbourne	76.0	100.0	161.1	164.5	169.2	177.2	177.6	180.8	181.7	182.9
Brisbane	67.1	100.0	144.0	145.2	149.0	158.3	158.8	159.7	161.1	162.5
Adelaide	68.7	100.0	154.9	158.5	164.6	171.1	172.6	173.2	175.5	179.1
Perth	62.7	100.0	150.9	155.9	160.0	165.6	166.5	167.6	170.2	172.6
Hobart	70.3	100.0	168.7	174.0	180.8	185.9	186.0	187.0	187.8	191.0
Canberra	70.9	100.0	162.2	162.6	164.4	166.9	167.4	168.3	169.2	169.6
HOUSEHOLD SUPPLIES AND EQUIPMENT GROUP										
Six State Capitals(*b*)	67.0	100.0	112.4	111.0	111.9	113.8	113.7	114.5	114.7	115.1
Sydney	67.0	100.0	112.8	111.3	110.7	111.4	111.1	111.8	111.8	112.0
Melbourne	66.1	100.0	114.0	112.6	115.2	118.7	118.7	119.4	120.0	120.6
Brisbane	68.6	100.0	112.8	111.7	112.7	115.0	115.1	116.1	116.0	116.2
Adelaide	69.5	100.0	106.2	104.4	104.9	106.2	106.2	107.0	106.7	107.1
Perth	66.5	100.0	107.0	105.2	106.4	108.1	107.9	108.5	108.9	110.1
Hobart	68.1	100.0	123.8	123.8	124.5	125.7	125.4	126.7	127.0	127.1
Canberra	69.8	100.0	113.2	112.8	113.2	113.4	113.1	113.6	113.5	113.6
MISCELLANEOUS GROUP										
Six State Capitals(*b*)	66.6	100.0	128.8	129.9	136.1	142.5	144.7	144.8	146.9	148.9
Sydney	67.7	100.0	129.3	130.0	135.1	140.4	142.1	142.3	143.2	146.2
Melbourne	64.4	100.0	129.7	130.8	138.3	145.2	147.4	147.6	151.3	152.2
Brisbane	69.2	100.0	134.4	135.2	140.9	148.7	152.0	152.0	154.7	155.5
Adelaide	67.2	100.0	121.6	122.3	129.6	136.4	138.9	138.8	139.8	142.3
Perth	67.7	100.0	125.5	128.5	134.2	142.1	144.6	144.6	146.1	149.1
Hobart	63.1	100.0	127.0	128.2	133.5	140.3	141.5	141.7	142.6	143.6
Canberra	69.7	100.0	121.7	124.1	129.3	134.8	136.3	136.4	137.3	137.8

(*a*) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number. (*b*) Weighted average.

Retail Price Index Numbers, 1901 to 1966

The index numbers shown below are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946 47, the 'C' Series Retail Price Index; from 1946 47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index.

RETAIL PRICE INDEX NUMBERS, 1901 TO 1966
SIX STATE CAPITAL CITIES COMBINED

(*Base: year* 1911 = 100)

Year	Index number	Year	Index number
1901	88	1934	136
1902	93	1935	138
1903	91	1936	141
1904	86	1937	145
1905	90	1938	149
1906	90	1939	153
1907	90	1940	159
1908	95	1941	1 7
1909	95	1942	181
1910	97	1943	188
1911	**100**	1944	187
1912	110	1945	187
1913	110	1946	190
1914(*a*)	114	1947	198
1915(*a*)	130	1948	218
1916(*a*)	132	1949	240
1917(*a*)	141	1950	262
1918(*a*)	150	1951	313
1919(*a*)	170	1952	367
1920(*a*)	193	1953	383
1921(*a*)	168	1954	386
1922(*a*)	162	1955	394
1923	166	1956	419
1924	164	1957	429
1925	165	1958	435
1926	168	1959	443
1927	166	1960	459
1928	167	1961	471
1929	171	1962	469
1930	162	1963	472
1931	145	1964	483
1932	138	1965	502
1933	133	1966	517

(*a*) November.

International comparisons

The following table shows index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the year 1958 is taken as base (= 100). The index numbers show fluctuations in prices in each country, and do not measure relative price levels as between countries.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES ALL GROUPS INDEXES, 1957 TO 1966

(*Source: Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)
(*Base of each index: year* 1958 = 100)

Period	Argentina (Buenos Aires)	Australia (*a*)	Belgium	Brazil (Sao Paulo)	Canada	France (*b*)	Germany, Federal Republic	India	Indonesia (Djakarta)	Ireland	Italy
1957 . .	76	99	99	87	97	–87–	98	95	n.a.	96	97
1958 . .	100	100	100	100	100	100	100	100	(*c*)100	100	100
1959 . .	214	102	101	137	101	106	101	104	126	100	100
1960 . .	272	–106–	102	185	102	110	102	106	169	100	102
1961 . .	309	108	103	256	103	114	105	108	209	103	104
1962 . .	396	108	104	390	104	119	108	112	582	108	109
1963 . .	–491–	–109–	106	675	106	105	111	115	1,254	110	117
1964 . .	600	111	111	1,266	108	108	114	131		117	124
1965 . .	771	116	115	2.048	111	111	118	143		123	129
1966 . .	1,017	119	120	3,003	115	114	122	159		127	132
1966—											
March qtr	935	118	118	2,621	114	113	120	149		124	132
June ,,	984	119	121	2,933	115	114	122	155		126	132
Sept. ,,	1,022	119	120	3 137	116	114	122	163		128	132
Dec. ,,	1,127	120	121	3,320	116	115	122	167		129	134

Period	Japan	Netherlands	New Zealand	Norway	Pakistan (Karachi)	Philippines (Manila)	Republic of South Africa (*d*)	Sweden	Switzerland (*e*)	United Kingdom	United States of America
1957 . .	100	98	96	95	97	97	97	95	98	97	97
1958 . .	100	100	100	100	100	100	–100–	100	100	100	100
1959 . .	101	102	104	–102–	97	99	101	101	99	101	101
1960 . .	105	103	105	102	103	103	103	105	101	102	102
1961 . .	110	105	106	105	–105–	105	105	107	103	105	103
1962 .	118	108	109	111	105	111	106	112	107	–110–	105
1963 . .	127	–113–	111	114	107	117	107	115	111	112	106
1964 . .	132	119	115	120	111	127	110	119	114	115	–107–
1965 . .	142	126	119	125	117	133	114	125	118	121	109
1966 . .		133	123	129	126		118	134	124	126	112
1966—											
March qtr	146	131	121	127	121	134	116	131	122	123	111
June ,,	149	135	122	128	125	136	117	133	123	126	112
Sept. ,	150	133	123	130	127	140	119	134	124	126	113
Dec. ,,		133	123	131	130		121	135	101	127	114

(*a*) Consumer Price Index converted to base 1958 = 100 by Commonwealth Statistician. (*b*) Beginning 1963, new index—base: 1962 = 100. Before 1963, index for Paris. (*c*) Base. Average of March-December, 1958 = 100. (*d*) Index for Europeans only. (*e*) Beginning October 1966, new index—base: 1966 = 100.

NOTE. Symbol – on each side of an index number (e.g. –95–) indicates that two series have been linked during that period. Symbol ——— between two index numbers indicates that it is not possible to link two series (because of change in scope, etc.) and therefore the index numbers are not comparable with each other even though they are shown on the same base period.

WHOLESALE PRICES AND PRICE INDEXES

Two indexes of wholesale prices of basic materials have been compiled by the Commonwealth Bureau of Census and Statistics. These are:

(i) The Melbourne Wholesale Price Index;
(ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

A special purpose index 'Wholesale Price Index of Electrical Installation Materials' is also published by the Bureau (*see* page 306). Work is proceeding on the preparation of new series of wholesale price index numbers.

A brief note on the Melbourne Wholesale Price Index, which is now obsolete, is given on page 306. After reviewing the list of items and weighting of the Melbourne Wholesale Price Index, the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index, the Wholesale Price (Basic Materials and Foodstuffs) Index, is compiled monthly and extends back to 1928.

Wholesale Price (Basic Materials and Foodstuffs) Index

Price quotations

The prices used in the index have, in the main, been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally-produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of the selected items in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and in respect of imported materials as nearly as may be at the point where they first make effective impact on the local price structure. Thus the prices of imported goods are not taken at the time of import, but rather on an ex-bond (or into factory) basis. Broadly, where home-consumption prices exist for local products, they have been used in this index. During the year 1950–51 wool for local manufacture was subsidised, and the home-consumption price for wool was used to calculate the index numbers shown in the table on pages 305-6.

Commodities and grouping

For purposes of this index, 'basic' materials (as opposed to certain of the foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The list of items is divided into seven main groups, each of which is sub-divided into goods which are mainly imported and goods which are mainly home-produced. The percentage of the total aggregate in 1965–66 contributed by each group was as follows: metals and coal, 16.09; oils, fats and waxes, 7.68; textiles, 3.03; chemicals, 3.56; rubber and hides, 1.66; building materials, 11.66; foodstuffs and tobacco, 56.32. Goods principally imported comprised 22.31 per cent of the total aggregate in 1965–66, and goods principally home-produced 77.69. A full list of the commodities and the quantity-multipliers (weights) is published in *Labour Report* No. 51, 1964, page 42.

Method of construction

The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928–29 to 1934–35 inclusive. Changes in usage, changes of category as between 'imported' and 'home-produced' for some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index.

Index numbers

Index numbers for each group of commodities, and for all groups combined, for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers on the base: average of three years ended June 1939 = 100 are published monthly in the mimeographed statement *Wholesale Price (Basic Materials and Foodstuffs) Index* and in the *Monthly Review of Business Statistics.* A table showing index numbers computed to the base: 1928 = 100 is published in the *Labour Report.*

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS YEARS 1928-29 TO 1965-66 AND MONTHS 1966-67

(*Base of each index: average of* 3 *years ended June* 1939 = 100)

Period	Basic Materials							Foodstuffs and Tobacco (*a*)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods Principally Imported (*b*)	Goods Principally Home Produced (*a*)	Total, All Groups (*a*)
1928-29	127	106	129	121	115	95	114	107	91	118	110
1929–30	126	111	99	116	87	94	107	110	94	118	111
1930–31	116	117	80	117	73	96	105	91	100	99	99
1931-32	108	113	77	119	74	95	101	86	100	92	95
1932–33	104	109	75	119	69	95	98	80	97	87	90
1933–34	103	84	102	111	80	94	92	84	89	89	90
1934–35	97	90	78	102	77	93	89	87	92	89	90
1935–36	92	95	100	99	88	93	90	92	95	92	93
1936–37	96	99	118	99	111	99	99	98	99	98	99
1937–38	101	101	100	100	97	104	102	102	102	101	101

For footnotes *see* next page.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS YEARS 1928-29 TO 1965-66 AND MONTHS 1966-67—*continued*

(*Base of each index: average of* 3 *years ended June* 1939 = 100)

Period	Basic Materials							Foodstuffs and Tobacco (*a*)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods Principally Imported (*b*)	Goods Principally Home Produced (*a*)	Total, All Groups (*a*)
1938–39	103	100	82	101	92	97	99	101	99	100	100
1939–40	105	115	104	107	116	108	109	99	111	101	104
1940–41	107	137	111	124	126	128	122	107	133	106	114
1941–42	117	151	118	137	135	135	133	116	153	112	124
1942–43	129	167	147	142	138	163	149	126	176	120	136
1943–44	131	170	150	143	140	174	153	130	182	122	140
1944–45	131	168	152	143	140	175	152	132	182	124	141
1945–46	130	156	152	142	140	177	149	136	178	127	142
1946–47	132	145	191	140	131	180	149	139	177	130	144
1947–48	146	161	283	148	126	190	166	154	192	145	159
1948–49	185	173	342	159	130	198	188	174	201	172	180
1949–50	214	184	434	187	143	225	214	196	223	196	204
1950–51	256	196	641	242	292	268	264	229	256	240	244
1951–52	343	220	577	314	298	370	321	276	288	300	297
1952–53	392	234	607	350	224	404	350	293	292	331	319
1953–54	388	222	566	323	191	363	332	308	271	339	319
1954–55	391	214	510	314	246	372	330	315	277	340	322
1955–56	404	220	456	317	328	415	345	325	292	352	334
1956–57	409	241	520	344	302	463	367	324	311	357	344
1957–58	398	238	437	349	280	453	355	325	301	355	339
1958–59	392	231	362	327	293	423	340	332	283	358	336
1959–60	395	225	403	331	379	431	347	348	281	375	348
1960–61	399	222	387	331	341	439	346	372	278	394	360
1961–62	392	212	400	333	302	439	340	332	270	363	336
1962–63	388	209	432	317	262	439	336	342	272	368	340
1963–64	383	207	484	286	221	473	339	352	275	376	346
1964–65	391	207	427	286	242	503	345	364	277	388	355
1965–66	390	218	432	325	306	507	355	385	280	409	371
1966–67—											
July	389	220	448	369	303	507	360	395	282	420	379
August	395	220	443	385	309	508	364	403	283	428	385
September	396	221	430	382	295	511	363	402	282	428	385
October	395	220	417	382	273	513	362	400	283	424	382
November	397	220	417	382	280	513	362	400	283	425	383
December	398	218	415	382	295	513	363	399	283	424	382
January	p400	218	p409	382	280	513	p363	p397	p283	p423	p382
February	p400	219	p414	382	269	512	p362	p396	p285	p421	p381

(*a*) Excludes potatoes and onions from 1936–37. (*b*) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in the prices of all imports.

Melbourne Wholesale Price Index

An index of Melbourne wholesale prices was first compiled in 1912. It related chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that year. Neither the list of items nor the weighting was varied, except for some changes in the building materials group in 1949. The series has some historical significance as a measure of changes, since the year 1861, in the prices of its component items combined in the proportions in which they were in common use about the year 1910. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43–5. Index numbers up to the year 1961, the last period for which the index was compiled, were published in Year Book No. 48, 1962.

Wholesale Price Index of Electrical Installation Materials

This special purpose index was introduced in 1964 and index numbers have been published at quarterly intervals from August 1959 onwards. In addition to its use in connection with the Bureau's constant price estimates in the national accounting field, the index has a direct value as a measure of changes in aggregate cost of materials used in an important part of the building industry (other than house-building).

Commodities and grouping

The items in this index have been selected as representative of materials used in electrical installation in structures such as hospitals, schools, factories and multi-storied commercial buildings and flats. These items are divided into three main groups for which separate indexes are compiled in addition to the All Groups index. The combination of materials selected is fixed as to quantity and quality. A list of the components of the index is set out below with the percentage contribution of each to the All Groups index in the reference base year 1959–60.

Price quotations

The items are priced as at the middle of the month for which index numbers are published. The basis of pricing is the price to electrical contractors, delivered on site or into store, metropolitan area Sydney or Melbourne. The price series used relate to specific standards for each item and in some cases are combinations of prices for different makes, types, etc. The units of quantity specified as the basis for collecting prices are representative lots normally purchased by electrical contractors, inclusive of quantity discounts and packing and quantity extras, etc.

Method of construction

The index is a fixed-weights index with the reference base: year 1959–60 = 100. In general, the weights were derived from information relating to the values of materials used in selected representative projects in Sydney and Melbourne during the three years 1960–61 to 1962–63. The projects selected for this purpose had a minimum electrical materials and labour content of $10,000. Selected representative items carry the weights of similar items not directly priced. The index is compiled by the method known as the weighted average of price relatives. Each quarter, base period percentage value weights are applied to indexes of price movement relative to 1959–60.

WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION MATERIALS COMPOSITION AND WEIGHTING PATTERN AS AT REFERENCE BASE YEAR 1959–60

Component		Percentage contribution to All Groups Index		
1. CONDUCTORS GROUP				40.00
	Mains—			
	Insulated cables	14.79		
	Glands	0.70		
	Bare copper strand	0.50		
	Copper bus-bar	3.50		
			19.49	
	Circuits—			
	Insulated cables and wire	19.08		
	Bare copper strand	1.43		
			20.51	
2. CONDUIT AND ACCESSORIES GROUP				25.00
	Conduit and ducting—			
	Metal conduit	10.79		
	Metal and plastic ducting	9.46		
			20.25	
	Accessories—			
	Metal and plastic junction boxes	2.59		
	Metal and plastic accessories—other	2.16		
			4.75	
3. SWITCH-BOARD AND SWITCH-GEAR MATERIAL GROUP				35.00
	Bakelite accessories—			
	Mounting blocks	0.65		
	Switches	1.40		
	Terminal boxes	0.10		
			2.15	
	Fluorescent components and lamps—			
	Fluorescent tubes and starters	1.37		
	Incandescent lamps	0.58		
			1.95	
	Iron clad accessories—			
	Switch plug	1.67		
	Plug top	0.64		
	Other accessories	1.30		
			3.61	
	Switch-board accessories' components—			
	Mild steel	3.07		
	Aluminium bar	0.86		
	Contactors	4.90		
	Circuit breakers	11.00		
	Other accessories	7.46		
			27.29	
	Total			100.00

Index numbers

Index numbers for each group of items and for all groups combined for the index of wholesale prices of electrical installation materials are given in the following table. Current index numbers are published quarterly in the mimeographed statement *Wholesale Prices—Price Index of Electrical Installation Materials.*

WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION MATERIALS GROUP INDEX NUMBERS, YEARS 1959-60 TO 1965-66 AND MAY 1961 TO FEBRUARY 1967

(*Base of each index: year* 1959–60 = 100.0) (*a*)

Period	Conductors	Conduit and Accessories	Switch-board and Switch-gear Material	All Groups
Year—				
1959–60	**100.0**	**100.0**	**100.0**	**100.0**
1960–61	99.5	102.3	100.9	100.7
1961–62	98.7	102.8	99.8	100.1
1962–63	96.8	103.6	100.5	99.8
1963–64	93.2	103.7	100.8	98.5
1964–65	110.6	104.6	105.2	107.2
1965–66	105.8	104.2	106.6	105.7
1960–61—May	98.7	102.5	101.1	100.5
1961–62—August	98.6	102.5	99.6	100.0
November	98.6	102.5	99.7	100.0
February	98.7	102.5	99.9	100.1
May	98.7	103.6	99.9	100.4
1962–63—August	97.9	103.6	100.1	100.1
November	97.9	103.6	100.6	100.3
February	97.9	103.6	100.6	100.3
May	93.4	103.6	100.7	98.5
1963–64—August	93.3	103.4	100.8	98.5
November	93.3	103.8	100.8	98.6
February	93.5	103.8	100.8	98.7
May	92.6	103.8	100.9	98.3
1964–65—August	96.4	104.4	103.8	101.0
November	103.3	104.4	104.7	104.0
February	121.3	104.4	106.0	111.7
May	121.3	105.1	106.3	112.0
1965–66—August	104.2	105.3	106.3	105.2
November	104.3	104.1	106.3	105.0
February	108.3	103.7	106.9	106.6
May	106.5	103.8	106.9	106.0
1966–67—August	124.1	104.5	106.9	113.2
November	122.6	106.2	109.8	114.0
February	122.6	106.3	110.1	114.2

(*a*) The figures appearing after the decimal points are inserted to avoid the distortions that would sometimes occur in rounding off the figures to the nearest whole number.

EXPORT PRICES AND PRICE INDEXES

Previous export price indexes

1901 to 1917

An annual index of export prices has been published by the Bureau since its inception. The first index was compiled annually for the years 1901 to 1916–17. The method of computation was to select all articles of export which were recorded by units of quantity, and to apply to the quantities of these export commodities actually exported during any year the average price per unit ruling in the year 1901 (adopted as the base year). The 'total value' so obtained was divided into the total recorded value of these exports for the year concerned and the result (multiplied by 1,000) was the export price index number for that year.

1918 to 1930

The method was changed in 1918. Weights for all principal exports were calculated, based on the average quantities of exports for the nineteen and a half years from 1 January 1897 to 30 June 1916. To these weights were applied the 'average unit export values' of each export in successive years, and a weighted aggregative index of 'price' variations was derived. This index was published for the years 1897 to 1929–30. Particulars of this index were last published in Year Book No. 24, page 147.

1928 to 1962

After the 1914–18 War the relative importance of different exports changed considerably, and the pattern of exports varied considerably from year to year. For these reasons two new series of monthly export price indexes—one using fixed weights and the other using changing weights—were published in 1937, compiled back to 1928. The data on which both series were based differed from those used in the previous series of annual index numbers. The most important change was the use of actual (or calculated) export prices in place of the 'unit values' declared at the Customs. Brief notes on these two indexes are given below. A full description of both indexes was last published in Year Book No. 48, 1962, pages 500–4.

The Fixed Weights Index. This was a weighted aggregative index of price variations. It was compiled back to 1928, with that year taken as base. In later years it was published on the base: average of three years ended June 1939 = 100. The original weights (used for the period 1928 to 1936) were the average annual exports (production in the case of gold) during the five years 1928–29 to 1932–33. From July 1936 the weights were revised and were based on average annual exports (production in the case of gold) during the three years 1933–34 to 1935–36. This index was published from 1937 until July 1962, after which it was replaced by the current Export Price Index described below.

The Changing Weights Index. This index was designed for shorter period comparisons—from one or more months of the current year to the corresponding months of the previous year. In computing these index numbers the 'quantity multipliers' were the quantities actually exported (sold, in some cases) in the months (or periods) to which the index numbers related. This index was discontinued in 1962.

The current Export Price Index

The current Export Price Index was first published in October 1962, but index numbers were compiled back to July 1959. The reference base of this index is: year 1959–60 = 100. This index is a fixed-weights index, and its purpose (as was that of the previous fixed-weights index) is to provide comparisons monthly, over a limited number of years, of the level of export prices of the selected items, making no allowance for variations in quantities exported. The index numbers are thus measures of price change only. The price series used in the index relate to specified standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc. For some commodities price movements in the predominant market, or markets, are used, while for other commodities average realisations in all export markets are used. As nearly as possible, prices used are on the basis f.o.b. at the main Australian ports of export. The index is compiled by the method known as 'weighted average of price relatives'.

Composition and weighting

There are twenty-nine items in the current index compared with twenty items in the previous index. These twenty-nine items have constituted approximately 83 per cent of the total value of Australian exports in recent years. The weights for the current index are based on average annual values of exports during the five years 1956–57 to 1960–61.

The following table sets out a list of the items, and groups of items, in the index, together with the percentage contribution of each item and group to the All Groups index in the reference base year 1959–60. The weights used for some of the items are adjusted to cover some related commodities which are not priced directly. The most important instances of this are wool, which includes wool exported on sheepskins, and copper, zinc, lead and silver, which include the estimated metallic content of ores and concentrates exported. In the previous index the weight for gold was derived from production instead of export figures. For the period 1956–57 to 1960–61 production and exports of gold were similar, and therefore in the current index the weight for gold (as for the other items) is based on average annual exports during the period.

EXPORT PRICE INDEX

LIST OF ITEMS AND PERCENTAGE CONTRIBUTION OF ITEMS AND GROUPS ALL GROUPS INDEX IN 1959-60

Group and item	Percentage contribution to All Groups Index in 1959–60	Group and item	Percentage contribution to All Groups Index in 1959–60
Wool	*50.73*	Canned—Pineapples	0.20
		Apricots	0.11
Meats—		Peaches	0.37
Beef	6.71	Pears	0.68
Lamb	0.76		
Mutton	0.59	*Total, dried and canned fruits*	*2.54*
Canned—Beef	1.65		
Mutton	0.21	*Sugar*	*3.99*
Total, meats	*9.92*	Hides and tallow—	
		Cattle hides	0.72
Dairy produce—		Tallow	0.54
Processed milk	1.36		
Butter	4.02	*Total, hides and tallow*	*1.26*
Cheese	0.64		
Eggs	0.47	Metals and coal—	
		Coal	0.63
Total, dairy produce	*6.49*	Iron and steel	3.48
		Copper	1.57
Cereals—		Zinc	1.23
Wheat and flour	10.11	Lead	2.97
Barley	1.77	Silver	0.66
Oats	0.66		
Total, cereals	*12.54*	*Total, metals and coal*	*10.54*
		Gold	*1.99*
Dried and canned fruits—			
Dried—Sultanas	1.06		
Currants	0.12	**Total**	**100.00**

Index numbers

Index numbers for each of the groups and 'All Groups' are shown in the table on page 311. The yearly index numbers are simple averages of the twelve monthly index numbers in each year.

Link between current and previous indexes

In order to show approximate movements in export prices over a long period, the 'All Groups' indexes of the previous and current series have been linked together at the year 1959–60, the earliest year for which the new index has been compiled. The table on page 312 shows this linked series and a long-term price index for wool, which is the most important single component in the movement of the 'All Groups' index.

EXPORT PRICE INDEX NUMBERS

YEARS 1959–60 TO 1965–66 AND MONTHS JULY 1963 TO FEBRUARY 1967

(*Base of each index: year* 1959–60 = 100)

Period	Wool	Meats	Dairy Produce	Cereals	Dried and Canned Fruits	Sugar	Hides and Tallow	Metals and Coal	Gold	All Groups
1959–60	100	100	100	100	100	100	100	100	100	100
1960–61	92	104	82	99	99	101	92	97	100	95
1961–62	97	100	81	106	95	91	84	91	100	96
1962–63	104	101	88	107	90	107	72	89	100	101
1963–64	120	105	93	107	98	175	73	101	100	114
1964–65	102	110	94	107	100	100	91	123	101	105
1965–66	107	120	86	107	102	84	107	122	101	107
1963–64—										
July	114	103	94	103	92	164	67	94	100	109
August	110	103	94	102	94	165	66	96	100	107
September	112	105	94	102	97	159	64	94	100	108
October	117	105	94	107	98	163	68	96	100	111
November	128	103	94	107	99	198	74	96	100	118
December	126	100	94	109	100	187	74	101	100	117
January	128	99	92	111	100	205	73	104	100	119
February	130	101	91	111	100	191	73	104	100	120
March	130	106	91	109	98	192	74	103	100	120
April	121	111	92	109	99	165	78	106	100	115
May	110	113	92	108	99	166	79	111	100	110
June	112	110	92	108	101	146	81	111	100	110
1964–65—										
July	112	109	92	109	101	139	81	114	100	110
August	112	110	92	110	100	122	83	117	100	110
September	110	109	92	111	100	113	85	119	101	109
October	108	110	93	112	100	104	87	123	101	109
November	107	110	95	110	100	102	89	126	101	108
December	101	111	95	104	100	94	90	126	101	104
January	98	112	95	106	100	89	90	124	101	102
February	99	111	95	104	100	86	93	128	101	103
March	94	110	95	104	100	85	94	129	101	101
April	94	111	96	104	100	83	98	127	101	101
May	96	112	93	104	100	91	100	122	101	101
June	96	110	91	104	100	91	99	117	101	100
1965–66—										
July	98	114	90	104	102	101	100	117	101	102
August	98	115	89	104	102	107	102	117	101	102
September	99	116	89	105	101	100	101	118	101	103
October	105	114	88	106	102	93	99	120	100	106
November	108	116	88	106	101	85	100	120	100	107
December	108	117	87	107	102	82	100	125	100	108
January	108	118	85	109	102	75	109	125	100	108
February	108	121	84	109	102	81	121	129	100	109
March	111	126	84	107	101	73	122	126	100	110
April	113	130	84	110	101	72	119	129	101	112
May	113	130	84	110	101	70	111	119	101	111
June	113	127	84	111	101	69	105	124	101	111
1966–67—										
July	113	121	84	113	p102	69	105	122	101	p110
August	111	117	84	113	p102	100	105	122	101	p110
September	107	120	84	115	p102	86	96	117	101	p107
October	102	120	84	113	p102	73	88	116	101	p104
November	102	119	84	112	p102	63	88	116	101	p104
December	p102	p121	84	114	p102	64	92	116	101	p104
January	p100	p127	84	114	p100	p59	92	p114	101	p103
February	p102	p129	84	114	p100	p64	86	p115	101	p105

EXPORT PRICE INDEX NUMBERS—LINKED SERIES
1936–37 TO 1965–66

(*Base of each index: year* 1959–60 = 100)

Period	Wool	All Groups	Period	Wool	All Groups
1936–37 . . .	29	30	1951–52 . . .	133	125
1937–38 . . .	23	27	1952–53 . . .	145	128
1938–39 . . .	19	22	1953–54 . . .	145	125
1939–40 . . .	23	26	1954–55 . . .	127	114
1940–41 . . .	24	28	1955–56 . . .	109	105
1941–42 . . .	24	28	1956–57 . . .	136	117
1942–43 . . .	28	30	1957–58 . . .	111	102
1943–44 . . .	28	31	1958–59 . . .	85	90
1944–45 . . .	28	34	**1959–60** . . .	**100**	**100**
1945–46 . . .	28	39	1960–61 . . .	92	95
1946–47 . . .	41	54	1961–62 . . .	97	96
1947–48 . . .	68	75	1962–63 . . .	104	101
1948–49 . . .	86	88	1963–64 . . .	120	114
1949–50 . . .	111	101	1964–65 . . .	102	105
1950–51 . . .	235	173	1965–66 . . .	107	107

WAGES, EARNINGS AND HOURS

Arbitration and Wages Boards Acts and associated legislation

Particulars regarding the operation of Commonwealth and State Laws for the regulation of wages, hours and other conditions of employment were first compiled for the year 1913, and revised particulars have appeared annually in the *Labour Report* and in issues of the Year Book prior to No. 38. A summary of the Commonwealth legislation and brief particulars of Commonwealth and State industrial tribunals are given in the following paragraphs.

Commonwealth industrial legislation and tribunals

Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. The Parliament has made such a law, namely the *Conciliation and Arbitration Act* 1904–1966.

This Act defines an 'industrial dispute' as:

> '(*a*) A dispute (including a threatened, impending or probable dispute) as to industrial matters which extends beyond the limits of any State; and (*b*) a situation which is likely to give rise to a dispute as to industrial matters which so extends; and includes—(*c*) such a dispute in relation to employment in an industry carried on by, or under the control of, a State or an authority of a State; (*d*) a dispute in relation to employment in an industry carried on by, or under the control of, the Commonwealth or an authority of the Commonwealth, whether or not the dispute extends beyond the limits of any one State; and (*e*) a claim which an organization is entitled to submit to the Commission under section eleven A of the *Public Service Arbitration Act* 1920–1966 or an application or matter which the Public Service Arbitrator has refrained from hearing, or from further hearing, or from determining under section fourteen A of that Act, whether or not there exists in relation to the claim, application or matter a dispute as to industrial matters which extends beyond the limits of any one State.'

The Conciliation and Arbitration Act was extensively amended by an Act (No. 44 of 1956) assented to on 30 June 1956. This amendment altered the structure of the arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. The Commonwealth Industrial Court was established to deal with judicial matters under the Act, and the Commonwealth Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. A summary of the provisions of the *Conciliation and Arbitration Act* 1904–1966 is given in the following paragraphs.

The Commonwealth Industrial Court is at present composed of a Chief Judge and five other Judges. The jurisdiction of the Court shall be exercised by not less than two Judges, except in the following circumstances. A single Judge may exercise the jurisdiction of the Court with respect to the dismissal or injury of an employee on account of industrial action, interpretation of awards, questions concerning eligibility of membership of an organisation, disputes between an organisation and its members, and a prescribed matter of practice or procedure. A single Judge may refer a question of law for the opinion of the Court constituted by not less than two Judges. The Court is a Superior Court of Record with the same power to punish contempts of its power and authority as is possessed by the High Court. In general, decisions of the Industrial Court are final; however, an appeal lies to the High Court, but only when the latter grants leave to appeal. The Act provides for the registration of associations of employees and employers, and for inquiries to be held concerning disputed elections in organisations; and certain powers in connection therewith are, by the Act, given to the Industrial Court. Provision is also made for the Commission to exercise the powers of the Court with regard to an application for cancellation of registration of an organisation. Any such change of jurisdiction must be notified by proclamation. This provision could be used if the powers of the Court in this regard were declared, in whole or in part, to be invalid.

Special provision is made concerning the right of audience before the Commonwealth Industrial Court. Briefly, except in proceedings which, in general, involve questions of law or offences against the Act, parties are able to elect whether to appear personally or to be represented by lawyers or officials. Even in proceedings involving questions of law, except appeals from decisions by other Courts to the Industrial Court, on matters arising under this Act or the *Public Service Arbitration Act* 1920–1966, the parties may, if they wish and the Court grants leave, be represented by officials.

The Commonwealth Conciliation and Arbitration Commission at the end of 1966 was composed of a President, five Deputy Presidents, a Senior Commissioner, ten Commissioners and three Conciliators. The Commission is empowered to prevent or settle industrial disputes by conciliation or arbitration, and to make suggestions and to do such things as appear right and proper for (*a*) effecting a reconciliation between parties to industrial disputes; (*b*) preventing and settling industrial disputes by amicable agreement; and (*c*) preventing and settling, by conciliation or arbitration, industrial disputes not prevented or settled by amicable agreement. The Commission may exercise its powers of its own motion or on the application of a party.

The President may assign a Commissioner to deal with industrial disputes relating to particular industries, or members of the Commission to deal with a particular industrial dispute. However, subject to the approval of the President, it is the duty of the Senior Commissioner to organise and allocate the work of the Commissioners and Conciliators. When an industrial dispute occurs or is likely to occur, a Commissioner shall take steps for the prompt prevention or settlement of that dispute by conciliation or, if in his opinion conciliation is unlikely to succeed or has failed, by arbitration. A Commissioner may arrange with the Senior Commissioner for a Conciliator to assist the parties to reach an amicable agreement and shall do so if the parties so request. If an agreement is reached a memorandum of its terms shall be made in writing, and may be certified by the Commission. A certified memorandum shall have the same effect as an award.

Only the Commission in Presidential Session, that is, the Commission constituted by at least three presidential members nominated by the President, has the power to make awards, or to certify agreements, concerning standard hours, basic wages and long-service leave. Upon application by a party to an industrial dispute, a Commissioner shall consult with the President as to whether in the public interest any matter in dispute should be dealt with by a Commission constituted by not less than three members nominated by the President, at least one of whom shall be a presidential member and one, where practicable, the Commissioner concerned. The President may direct the Commission to hear the matter in dispute; however, after consideration, the Commission may refer the matter in dispute back for determination to the Commissioner originally dealing with the dispute.

An appeal against the decision of a Commissioner shall be heard by not less than three members nominated by the President, of whom at least two shall be presidential members of the Commission. However, an appeal will not be heard unless the Commission considers it is necessary as a matter of public interest. The President, after taking account of the views of the parties to a dispute, may appoint a member of the Commission to take evidence on behalf of a presidential bench of the Commission, so that it may have this evidence before it when it commences its hearing.

Full benches of the Commission not constituted by the same persons may sit in joint session at the direction of the President when he considers it desirable and has the opinion that a question is common to the matters before those benches. A joint session may be held whether the benches concerned are constituted pursuant to the Conciliation and Arbitration Act or the Public Service Arbitration Act, and whether they are constituted to hear references or appeals. However, it is left to each appropriate full bench to determine any of the matters before it.

Provision is also made in the Act for a presidential member of the Commission to handle industrial matters in connection with the maritime industries, the Snowy Mountains Area and the stevedoring industry, except in those matters for which the Act requires that the Commission shall be constituted by more than one member. The Commonwealth Conciliation and Arbitration Commission also deals with disputes and industrial matters, interstate or intra-state, associated with undertakings or projects of the Commonwealth Government which have been declared by the Minister to be Commonwealth projects for the purposes of this Act. In effect, this places employees of Commonwealth projects, so declared, under the jurisdiction of the Commission. The Minister has the power to exempt certain persons or classes of persons working on these projects from the jurisdiction of the Commission.

The Commission may make an award in relation to an industrial dispute concerning employees of a Commonwealth project or when the Public Service Arbitrator refrains from dealing with claims made by a Public Service employee organisation or consents to the claims being presented to the Commission, though such an award may be inconsistent with a law of the Commonwealth relating to salaries, wages, rates of pay or terms or conditions of service of employees in the Public Service as defined by section three of the *Public Service Arbitration Act* 1920–1966, not being the *Commonwealth Employees' Compensation Act* 1930–1964, the *Commonwealth Employees' Furlough Act* 1943–1959, the *Superannuation Act* 1922–1966 or any other prescribed Act.

The Act provides that where a State law, or an order, award, decision or determination of a State industrial authority is inconsistent with or deals with a matter dealt with in an award of the Commission, the latter shall prevail, and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

For further particulars regarding Commonwealth arbitration legislation, *see* the annual *Labour Report*. For information concerning the Australian Stevedoring Industry Authority and the Coal Industry Tribunal *see* the Transport and Communication chapter and the Mineral Industry chapter respectively of this Year Book, and for further information on the Commonwealth Public Service Arbitrator *see* the *Labour Report*.

State industrial tribunals—New South Wales

The controlling authority is the Industrial Commission of New South Wales, consisting of a President and seven other Judges. Subsidiary tribunals are the Conciliation Commissioners, the Apprenticeship Commissioner, Conciliation Committees, and Apprenticeship Councils constituted for particular industries. Each Conciliation Committee consists of a Conciliation Commissioner as Chairman and equal numbers of representatives of employers and employees. The Apprenticeship Commissioner and the members of the Conciliation Committee for an industry constitute the Apprenticeship Council for the industry. These subsidiary tribunals may make awards binding on industries, but an appeal to the Industrial Commission may be made against any award. Special Commissioners with conciliatory powers and limited arbitration powers may be appointed. Compulsory control commenced in 1901, after the earlier Acts of 1892 and 1899 providing for voluntary submission of matters in dispute had proved abortive.

Victoria

The authorities are separate Wages Boards for the occupations and industries covered, each consisting of a chairman and equal numbers of representatives of employers and employees, and a Court of Industrial Appeals, the latter presided over by a Judge of the County Court. The system was instituted in the State in 1896, and represented the first example in Australia of legal regulation of wage rates.

Queensland

Legal control was first instituted in 1908 with the passing of the Wages Boards Act. '*The Industrial Conciliation and Arbitration Act of* 1961' established the Industrial Conciliation and Arbitration Commission and preserved and continued in existence the Industrial Court. The Industrial Court is constituted by the President (a Judge of the Supreme Court of Queensland) sitting alone, and the Full Industrial Court by the President and two Commissioners. The Conciliation and Arbitration Commission is constituted by a Commissioner sitting alone; and the Full Bench of the Commission by at least three Commissioners. Not more than five Commissioners shall be appointed. A Commissioner shall not be capable of being a member of the Executive Council or of the Legislative Assembly, and shall not take part in the management of any business.

South Australia

In South Australia, from July 1966, the system of control consists of an Industrial Commission, an Industrial Court and Conciliation Committees. The Industrial Commission is composed of a President and two Commissioners, and has power to make awards. The President of the Commission is also Judge of the Industrial Court which deals with legal matters. The two

Commissioners are chairmen of each of the Conciliation Committees consisting of an equal number of representatives of employers and employees. These committees issue awards. Where complete agreement cannot be reached in these committees the chairman sits as a Commissioner to determine the unresolved matters. Provision is made for references and appeals to the full Commission.

Western Australia

Legal control dates back to 1900. The present system of control comprises a four-man Western Australian Industrial Commission and an Industrial Appeal Court consisting of three Supreme Court judges who are nominated by the Chief Justice of Western Australia. A Commissioner may, in relation to any dispute or other matter, refer such matters to the Commission in Court Session. Similarly, appeals from decisions of a single Commissioner are heard by the other three Commissioners acting as the Commission in Court Session, but such hearings are restricted to the evidence and matters raised in the proceedings before the single Commissioner. Up to December 1966 the Commission in Court Session fixed and adjusted the basic wage. However, in December 1966 legislation provided that the Western Australian basic wage rates should be the same as the Commonwealth Six Capitals rates as soon as these exceeded the State rates. Appeals from the Commission to the Industrial Appeal Court are limited to matters which are erroneous in law or in excess of jurisdiction. The Court has the power to impose penalties for disobedience of orders made by the Commission.

The Western Australian Coal Industry Tribunal, established under the *Mining Act 1904–1965*, has power to determine any industrial matter in the coal mining industry. It consists of a chairman and four other members (two representatives each of employers and employees). Boards of reference may be appointed by the Tribunal and decisions of the Tribunal may be reviewed by the Court of Arbitration on the application of a party subject to the decision.

Tasmania

The authority consists of Wages Boards for separate industries, comprising a Chairman (who is common to all Wages Boards) appointed by the Governor, and equal numbers of representatives of employers and employees appointed by the Minister administering the Act. The system was instituted in 1910.

Incidence of industrial awards, determinations and agreements

In May 1963 a survey was conducted to ascertain the approximate proportions of employees affected by awards, determinations and registered industrial agreements under the jurisdiction of Commonwealth and State industrial authorities. The proportions of employees not so affected by awards, etc. (including those affected by unregistered industrial agreements) were also obtained. The scope, results, etc., of this survey were published in *Labour Report* No. 51, 1964, and in a mimeographed statement (S.B. 383 of 11 February 1964).

Rates of wage and hours of work

This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the indexes there are fifteen industry groups for adult males and eight industry groups for adult females. For relevant periods these indexes replace cognate indexes (base: year 1911 = 1,000 for males and April 1914 = 1,000 for females) published in Year Books before No. 46, 1960. The current indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April 1954, which showed the number of employees covered by individual awards, determinations and agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November 1954. This second survey showed the number of employees in each occupation within selected awards, etc., thereby providing occupation weights.

The industrial classification used in the current indexes, shown in the table on page 317, does not differ basically from the previous classification, the alterations being largely in the arrangement of classes. The former Pastoral, agricultural, etc., group and the Domestic part of the group Amusement, hotels, personal service, etc. are excluded from the current indexes because of coverage difficulties.

The minimum wage rates and standard hours of work used in the current indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and agreements in force at the end of each month or quarter, commencing with March 1939 for adult males and March 1951 for adult females. From January 1957 particulars for adult males have been available as at the end of each month. The index for adult males includes rates and hours for 3,415 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,313. For adult females, the corresponding numbers are 1,100 and 515. Using the industry and occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industry group for each State and Australia. Weighted averages of the components of the total minimum weekly wage rate, i.e. basic wage, margin and loading, were calculated separately for employees covered by Commonwealth awards, etc., and for those covered by State awards, etc. (*see* pages 318-9).

Because the indexes are designed to measure movements in prescribed minimum rates of 'wages' as distinct from 'salaries', those awards, etc. which relate solely or mainly to salary earners are excluded.

A more detailed description of the current indexes of minimum rates of wage and standard hours of work is given in the *Labour Report*, which also contains an extensive tabular presentation of the minimum rates of wage for adult males and females in the principal occupations in the capital city of each State. Further particulars of wage rates and index numbers will be found in a mimeographed statement, *Minimum Wage Rates, March* 1939 *to June* 1965. Current figures are published in the monthly bulletin *Wage Rates and Earnings*.

Weekly wage rates—adult males

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers for a full week's work, and index numbers at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS(*a*), STATES DECEMBER 1950 TO 1966

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*b*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
			RATES OF WAGE(*c*) ($)				
1950 . .	20.62	20.18	19.52	19.79	20.06	19.80	20.20
1955 . .	30.52	29.56	28.35	28.50	30.01	29.36	29.70
1960 . .	36.28	34.99	35.07	34.22	35.81	35.15	35.50
1965 . .	41.04	40.34	41.66	39.48	40.49	40.71	40.74
1966 . .	43.18	42.76	43.53	41.74	43.36	43.18	42.99
			INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rate for Australia,* 1954 = 100)				
1950 . .	73.0	71.4	69.1	70.1	71.0	70.1	71.5
1955 . .	108.1	104.7	100.4	100.9	106.3	104.0	105.2
1960 . .	128.5	123.9	124.2	121.2	126.8	124.5	125.7
1965 . .	145.3	142.8	147.5	139.8	143.4	144.2	144.3
1966 . .	152.9	151.3	154.1	147.7	153.5	152.9	152.2

(*a*) Excludes rural. (*b*) As prescribed in awards, determinations and agreements. (*c*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industry group and for all groups (excluding rural) at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRY GROUPS, AUSTRALIA DECEMBER, 1950 TO 1966

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*a*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

RATES OF WAGE(*b*)
($)

Industry group	End of December—				
	1950	1955	1960	1965	1966
Mining and quarrying	25.96	36.68	41.47	48.55	50.28
Manufacturing—					
Engineering, metals, vehicles, etc.	20.17	29.48	35.02	39.67	41.83
Textiles, clothing and footwear	19.74	28.50	34.04	38.62	40.66
Food, drink and tobacco	20.14	29.58	35.22	40.51	42.53
Sawmilling, furniture, etc.	19.60	28.88	34.62	39.55	41.60
Paper, printing, etc.	21.42	31.25	37.92	43.06	45.61
Other manufacturing	19.76	29.13	34.72	39.71	41.84
All manufacturing groups	*20.08*	*29.41*	*35.05*	*39.90*	*42.04*
Building and construction	19.86	29.55	35.75	41.38	44.43
Railway services	19.58	29.09	34.65	39.91	41.84
Road and air transport	19.79	29.42	35.25	40.69	42.97
Shipping and stevedoring(*c*)	19.66	27.69	34.46	39.78	41.87
Communication	21.33	31.65	38.49	47.46	49.52
Wholesale and retail trade	20.08	29.78	35.71	40.53	42.83
Public authority (n.e.i.) and community and business services	19.21	28.98	34.81	40.27	42.51
Amusement, hotels, personal service, etc.	19.23	28.36	33.73	38.55	40.51
All industry groups(*d*)	**20.20**	**29.70**	**35.50**	**40.74**	**42.99**

INDEX NUMBERS
(*Base: Weighted Average Weekly Wage Rate for Australia*, 1954 = 100)

Industry group	1950	1955	1960	1965	1966
Mining and quarrying	91.9	129.9	146.8	171.9	178.0
Manufacturing—					
Engineering, metals, vehicles, etc.	71.4	104.4	124.0	140.5	148.1
Textiles, clothing and footwear	69.9	100.9	120.5	136.7	143.9
Food, drink and tobacco	71.3	104.7	124.7	143.4	150.5
Sawmilling, furniture, etc.	69.4	102.3	122.6	140.0	147.3
Paper, printing, etc.	75.9	110.7	134.3	152.5	161.4
Other manufacturing	70.0	103.2	122.9	140.6	148.1
All manufacturing groups	*71.1*	*104.1*	*124.1*	*141.3*	*148.8*
Building and construction	70.3	104.6	126.6	146.5	157.3
Railway services	69.3	103.0	122.7	141.3	148.1
Road and air transport	70.1	104.2	124.8	144.1	152.1
Shipping and stevedoring(*c*)	69.6	98.1	122.0	140.9	148.2
Communication	75.5	112.1	136.3	168.0	175.3
Wholesale and retail trade	71.1	105.4	126.4	143.5	151.6
Public authority (n.e.i.) and community and business services	68.0	102.6	123.2	142.6	150.5
Amusement, hotels, personal service, etc.	68.1	100.4	119.4	136.5	143.4
All industry groups(*d*)	**71.5**	**105.2**	**125.7**	**144.3**	**152.2**

(*a*) As prescribed in awards, determinations and agreements. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (*c*) Includes the value of keep, where supplied. (*d*) Excludes rural.

Adult males—components of total wage rate. A dissection of weighted average minimum weekly wage rates for adult males into the three components of the total minimum wage, i.e. basic wage, margin and loading, is given in the following three tables, separate particulars being shown for employees covered by awards, etc., within Commonwealth and State jurisdictions. For the purposes of the index the Commonwealth jurisdiction embraces awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission and determinations of the Commonwealth Public Service Arbitrator. State jurisdictions embrace awards or determinations of, or agreements registered with, State industrial tribunals, together with certain unregistered agreements, where these are dominant in the particular industries to which they refer.

The *basic wage rates* shown herein are weighted averages of the rates prescribed in awards, etc., for the occupations included in the index for each State. For industries other than mining, metropolitan basic wage rates have generally been used. However, there are a number of occupations for which basic wage rates other than the metropolitan rate are prescribed. Also, in some States at various times, State Government employees under Commonwealth awards have been paid State basic wage rates, and the basic wage rates of some employees have been subject to automatic quarterly adjustments while those of other employees within the same jurisdiction have remained unchanged. In all such cases the basic wage rate actually paid is used in the tables below. For these and other reasons the weighted average basic wage rates differ, in the majority of cases, from the metropolitan basic wage rates shown in other sections of this chapter.

Margins are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for features attaching to their work, such as skill, experience, arduousness and other like factors.

Loadings are minimum amounts, in addition to the basic wage and margin (if any), awarded for various kinds of disabilities associated with the performance of work, or to meet particular circumstances. They include payments such as industry loadings and other general loadings prescribed in awards, etc. for the occupations included in the index.

For a more detailed description of this dissection of weekly wage rates into components and for tables for each State and Australia, according to jurisdiction, extending back to 1939, *see* the mimeographed statement *Minimum Wage Rates, March* 1939 *to June* 1965.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE, STATES, 31 DECEMBER 1966(*a*)

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(*b*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)

($)

Jurisdiction and component of total wage(*c*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Commonwealth awards, etc.—							
Basic wage . . .	33.36	32.73	31.95	32.35	32.84	33.22	32.92
Margin . . .	9.20	8.80	10.41	9.38	12.30	8.43	9.16
Loading . . .	0.60	0.77	0.63	0.38	0.37	1.01	0.64
Total wage . .	*43.16*	*42.30*	*42.99*	*42.11*	*45.51*	*42.66*	*42.72*
State awards, etc.—							
Basic wage . . .	33.50	32.70	32.79	32.31	33.50	33.39	33.13
Margin . . .	8.72	9.96	9.99	7.20	8.87	9.00	9.17
Loading . . .	1.00	1.11	0.89	1.38	0.70	1.61	0.99
Total wage . .	*43.22*	*43.77*	*43.67*	*40.89*	*43.07*	*44.00*	*43.29*
All awards, etc.—							
Basic wage . . .	33.42	32.72	32.62	32.34	33.43	33.29	33.02
Margin . . .	8.98	9.16	10.08	8.71	9.27	8.65	9.16
Loading . . .	0.78	0.88	0.83	0.69	0.66	1.24	0.81
Total wage . .	*43.18*	*42.76*	*43.53*	*41.74*	*43.36*	*43.18*	*42.99*

(*a*) Excludes rural. The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (*b*) As prescribed in awards, determinations and agreements. (*c*) For definitions, *see* text above.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE AUSTRALIA(*a*), DECEMBER 1945 TO 1966

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(*b*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)

($)

Jurisdiction and components of total wage(*c*)	End of December— 1945	1950	1955	1960	1965	1966
Commonwealth awards, etc.—						
Basic wage	9.72	16.22	23.90	27.82	30.92	32.92
Margin	1.93	3.57	5.27	7.01	8.96	9.16
Loading	0.42	0.39	0.23	0.31	0.55	0.64
Total wage	*12.07*	*20.18*	*29.40*	*35.14*	*40.43*	*42.72*
State awards, etc.—						
Basic wage	9.81	16.17	24.47	28.52	31.34	33.13
Margin	2.00	3.52	5.05	6.84	8.82	9.17
Loading	0.24	0.54	0.50	0.52	0.91	0.99
Total wage	*12.05*	*20.23*	*30.02*	*35.88*	*41.07*	*43.29*
All awards, etc.—						
Basic wage	9.77	16.19	24.18	28.16	31.12	33.02
Margin	1.97	3.55	5.16	6.92	8.90	9.16
Loading	0.32	0.46	0.36	0.42	0.72	0.81
Total wage	*12.06*	*20.20*	*29.70*	*35.50*	*40.74*	*42.99*

For footnotes *see* page 318.

A table showing components of total wage rates in industry groups for Australia at the end of December each year 1945 to 1964 was published in the Appendix to *Labour Report*, No. 51, 1964.

The table below shows similar details for 31 December 1965 and 1966.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE INDUSTRY GROUPS, AUSTRALIA, DECEMBER 1965 AND 1966(*a*)

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(*b*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)

($)

Industry group	31 December 1965 Basic wage	Margin	Loading	Total wage	31 December 1966 Basic wage	Margin	Loading	Total wage
Mining and quarrying(*c*)	31.48	9.67	7.40	48.55	33.34	9.81	7.13	50.28
Manufacturing—								
Engineering, metals, vehicles, etc.	31.07	8.32	0.28	39.67	33.01	8.55	0.27	41.83
Textiles, clothing and footwear	30.92	7.59	0.11	38.62	32.89	7.66	0.11	40.66
Food, drink and tobacco	31.15	9.03	0.33	40.51	33.02	9.18	0.33	42.53
Sawmilling, furniture, etc.	31.26	8.22	0.07	39.55	33.07	8.46	0.07	41.60
Paper, printing, etc.	31.06	11.89	0.11	43.06	33.02	12.48	0.11	45.61
Other manufacturing	31.13	8.11	0.47	39.71	33.06	8.30	0.48	41.84
All manufacturing groups	*31.09*	*8.53*	*0.28*	*39.90*	*33.02*	*8.74*	*0.28*	*42.04*
Building and construction	31.20	8.49	1.69	41.38	33.05	8.97	2.41	44.43
Railway services	31.21	8.30	0.40	39.91	32.99	8.46	0.39	41.84
Road and air transport	31.15	9.52	0.02	40.69	33.04	9.91	0.02	42.97
Shipping and stevedoring(*d*)	30.87	8.86	0.05	39.78	32.84	8.96	0.07	41.87
Communication	30.79	16.04	0.63	47.46	32.80	16.07	0.65	49.52
Wholesale and retail trade	31.16	8.98	0.39	40.53	33.04	9.37	0.42	42.83
Public authority (n.e.i.) and community and business services	31.14	8.82	0.31	40.27	33.01	9.11	0.39	42.51
Amusement, hotels, personal service, etc.	31.06	7.44	0.05	38.55	32.98	7.48	0.05	40.51
All industry groups	**31.12**	**8.90**	**0.72**	**40.74**	**33.02**	**9.16**	**0.81**	**42.99**

(*a*) Excludes rural. The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. For definitions of basic wage, margin and loading *see* text, page 318. (*b*) As prescribed in awards, determinations and agreements. (*c*) For mining, the average rates of wage are those prevailing at the principal mining centres in each State. They include lead bonuses, etc. (*d*) Average rates of wage are for occupations other than masters, officers and engineers in the Merchant Marine Service, and include the value of keep, where supplied.

Weekly wage rates—adult females

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work, and index numbers at the dates specified. This series has not been compiled for years prior to 1951.

WEEKLY WAGE RATES: ADULT FEMALES, STATES, DECEMBER 1951 TO 1966

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*a*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(*b*) ($)							
December 1951 . .	17.23	17.22	16.12	17.02	16.25	16.56	17.03
,, 1955 . .	20.97	21.04	19.42	20.18	19.78	20.00	20.69
,, 1960 . .	26.12	24.66	23.93	24.29	25.12	23.88	25.17
,, 1965 . .	29.92	28.46	29.15	27.75	28.69	27.95	29.09
,, 1966 . .	31.48	30.05	30.46	29.41	30.70	29.74	30.67
INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rate for Australia* 1954 = 100)							
December 1951 . .	86.6	86.5	81.0	85.5	81.6	83.2	85.6
,, 1955 . .	105.3	105.7	97.6	101.3	99.3	100.5	103.9
,, 1960 . .	131.2	123.9	120.2	122.0	126.2	120.0	126.4
,, 1965 . .	150.3	143.0	146.4	139.4	144.1	140.4	146.1
,, 1966 . .	158.1	150.9	153.0	147.7	154.1	149.3	154.1

(*a*) As prescribed in awards, determinations and agreements. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industry groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS, AUSTRALIA DECEMBER 1951 TO 1966

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*a*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry group	End of December—				
	1951	1955	1960	1965	1966
RATES OF WAGE(*b*) ($)					
Manufacturing—					
Engineering, metals, vehicles, etc. . .	17.09	20.65	24.98	28.55	30.07
Textiles, clothing and footwear . .	17.12	20.09	24.07	27.25	28.75
Food, drink and tobacco . . .	16.58	20.68	24.63	28.28	29.85
Other manufacturing	16.88	20.36	24.80	28.44	30.00
All manufacturing groups . . .	*16.99*	*20.33*	*24.46*	*27.88*	*29.40*
Transport and communication . . .	17.75	21.38	26.02	31.42	33.04
Wholesale and retail trade	17.11	21.30	26.36	30.58	32.24
Public authority (n.e.i.) and community and business services	17.01	20.97	25.78	30.56	32.23
Amusement, hotels, personal service, etc. .	16.68	20.17	24.50	28.23	29.75
All industry groups	**17.03**	**20.69**	**25.17**	**29.09**	**30.67**

For footnotes *see* next page.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS, AUSTRALIA DECEMBER 1951 TO 1966—*continued*

INDEX NUMBERS

(*Base: Weighted Average Weekly Wage Rate for Australia*, 1954 = 100)

Industry group	End of December—				
	1951	1955	1960	1965	1966
Manufacturing—					
Engineering, metals, vehicles, etc.	85.9	103.7	125.5	143.4	151.0
Textiles, clothing and footwear	86.0	100.9	120.9	136.9	144.4
Food, drink and tobacco	83.3	103.9	123.7	142.0	149.9
Other manufacturing	84.8	102.3	124.6	142.9	150.7
All manufacturing groups	*85.4*	*102.1*	*122.9*	*140.0*	*147.7*
Transport and communication	89.2	107.4	130.7	157.8	165.9
Wholesale and retail trade	85.9	107.0	132.4	153.6	161.9
Public authority (n.e.i.) and community and business services	85.4	105.3	129.5	153.5	161.8
Amusement, hotels, personal service, etc.	83.8	101.3	123.1	141.8	149.4
All industry groups	**85.6**	**103.9**	**126.4**	**146.1**	**154.1**

(*a*) As prescribed in awards, determinations and agreements. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Standard hours of work

In the fixation of weekly wage rates most industrial tribunals prescribe the number of hours constituting a full week's work for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages and index numbers on page 323. The main features of the reduction of hours to forty-four and later to forty per week are summarised on pages 321–2. In considering such changes, it must be remembered that even within individual States the authority to alter conditions of work is divided between Commonwealth and State industrial tribunals and the various legislatures, and that the State legislation usually does not apply to employees covered by awards of the Commonwealth Conciliation and Arbitration Commission. However, it may do so in respect of matters not treated in Commonwealth awards.

The 44-hour week

No permanent reduction to a 44-hour week was effected until 1925, although temporary reductions had been achieved earlier. In 1920 the New South Wales legislature granted a 44-hour week to most industries, but in the following year this provision was withdrawn. Also in 1920 the President of the Commonwealth Court of Conciliation and Arbitration (Higgins *J.*), after inquiry, granted a 44-hour week to the Timber Workers' Union, and in the following year he extended the same privilege to the Amalgamated Society of Engineers. In 1921, however, a reconstituted Commonwealth Court of Conciliation and Arbitration unanimously rejected applications by five trade unions for the shorter standard week and re-introduced the 48-hour week in the case of the above-mentioned two unions then working forty-four hours. During 1924 the Queensland Parliament passed legislation to operate from 1 July 1925 granting the 44-hour standard week to employees whose conditions of work were regulated by awards and agreements of the Queensland State industrial authority. Similar legislative action in New South Wales led to the re-introduction of the 44-hour week in that State as from 4 January 1926.

In 1927, after an exhaustive inquiry, the Commonwealth Court of Conciliation and Arbitration granted a 44-hour week to the Amalgamated Engineering Union and intimated that this reduction in standard hours of work would be extended to industries operating under conditions similar to those in the engineering industry. Applications for the shorter hours by other unions were, however, treated individually, the nature of the industry, the problem of production, the financial status, and the amount of foreign competition being fully investigated. The economic depression delayed the extension of the standard 44-hour week until the subsequent improvement in economic conditions made possible its general extension to employees under Commonwealth awards.

In States other than New South Wales and Queensland no legislation was passed to reduce the standard hours of work, so that, for employees not covered by Commonwealth awards, the change had to be effected by decisions of the appropriate industrial tribunals. In these cases the date on which the reduction to forty-four hours was implemented depended on the decision of the tribunals in particular industries, employees in some industries receiving the benefit of the reduced hours years ahead of those in others. In these States the change to the shorter week extended over the years from 1926 to 1941.

The 40-hour week

Standard Hours Inquiry, 1947. Soon after the end of the 1939–45 War applications were made to the Commonwealth Court of Conciliation and Arbitration for the introduction of a 40-hour week, and the hearing by the Court commenced in October 1945. Before the Court gave its decision the New South Wales Parliament passed legislation granting a 40-hour week, operative from 1 July 1947, to industries and trades regulated by State awards and agreements, and in Queensland similar legislation was introduced in Parliament providing for the 40-hour week to operate from 1 January 1948.

The Commonwealth Court of Conciliation and Arbitration, in its judgment of 8 September 1947, granted the reduction to the 40-hour week from the beginning of the first pay-period commencing in January 1948. The Queensland Act was passed, and was proclaimed on 10 October 1947. On 27 October 1947, the South Australian Industrial Court, after hearing applications by unions, approved the incorporation of the 40-hour standard week in awards of that State. The Court of Arbitration of Western Australia, on 6 November 1947, approved that on application provision for a 40-hour week could be incorporated in awards of the Court, commencing from 1 January 1948.

In Victoria and Tasmania the Wages Boards met and also incorporated the shorter working week in their determinations, so that from the beginning of 1948 practically all employees in Australia whose conditions of labour were regulated by industrial authorities had the advantages of a standard working week of forty hours or, in certain cases, less.

Basic Wage and Standard Hours Inquiry, 1952–53. In the 1952–53 Basic Wage and Standard Hours Inquiry the employers sought an increase in the standard hours of work per week, claiming that one of the chief causes of the high costs and inflation had been the loss of production due to the introduction of the 40-hour week. This claim was rejected by the Court, as it considered that the employers had not proved that the existing economic situation called for a reduction of general standards in the matter of the ordinary working week. (*See also* page 340.)

Basic Wage and Standard Hours Inquiry, 1961. The Commonwealth Conciliation and Arbitration Commission rejected an employers' claim for an increase in the number of ordinary working hours from 40 to 42 per week, with a concomitant increase in weekly wages by an amount equal to two hours' pay at ordinary rates. This was to be a temporary measure to have effect for four years, after which time hours would revert to 40 and the increased wage would remain. (*See also* page 341.)

Hourly wage rates

The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc. for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between various occupations in each State, and between the same occupations in the several States. For some purposes a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage given in the following tables relate to all industry groups except Rural, and Shipping and stevedoring. The Rural industry is not included in the index and Shipping and stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

The following table shows the weighted average minimum hourly rates of wage payable to adult male workers, and index numbers of hourly rates in each State.

HOURLY WAGE RATES(a): ADULT MALES
STATES, DECEMBER 1950 TO 1966

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(b) (cents)							
December 1950 . .	51.63	50.48	48.83	49.53	50.29	49.52	50.58
,, 1955 . .	76.57	74.06	71.02	71.40	75.42	73.71	74.47
,, 1960 . .	90.91	87.57	87.79	85.61	89.89	88.08	88.92
,, 1965 . .	102.80	100.95	104.35	98.78	101.57	102.07	102.02
,, 1966 . .	108.17	107.01	109.02	104.43	108.80	108.30	107.67
INDEX NUMBERS (*Base: Weighted Average Hourly Wage Rate for Australia*, 1954 = 100)							
December 1950 . .	73.0	71.4	69.0	70.0	71.1	70.0	71.5
,, 1955 . .	108.2	104.7	100.4	100.9	106.6	104.2	105.3
,, 1960 . .	128.5	123.8	124.1	121.0	127.1	124.5	125.7
,, 1965 . .	145.3	142.7	147.5	139.6	143.6	144.3	144.2
,, 1966 . .	152.9	151.3	154.1	147.6	153.8	153.1	152.2

(a) Weighted average hourly rates of wage for all industry groups except rural, and shipping and stevedoring. *See* page 322. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows the weighted average minimum hourly rates of wage payable to adult female workers, and index numbers of hourly rates in each State.

HOURLY WAGE RATES: ADULT FEMALES
STATES, DECEMBER 1951 TO 1966

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(a) (cents)							
December 1951 . .	43.58	43.25	40.60	42.81	40.85	41.86	42.92
,, 1955 . .	53.04	52.86	48.93	50.73	49.71	50.56	52.16
,, 1960 . .	66.09	61.94	60.28	61.08	63.14	60.37	63.44
,, 1965 . .	75.69	71.50	73.43	69.78	72.12	70.52	73.33
,, 1966 . .	79.64	75.48	76.72	73.96	77.16	75.04	77.31
INDEX NUMBERS (*Base: Weighted Average Hourly Wage Rate for Australia*, 1954 = 100)							
December 1951 . .	86.9	86.2	80.9	85.3	81.4	83.4	85.6
,, 1955 . .	105.7	105.3	97.5	101.1	99.1	100.8	104.0
,, 1960 . .	131.7	123.5	120.1	121.7	125.8	120.3	126.4
,, 1965 . .	150.9	142.5	146.3	139.1	143.8	140.5	146.2
,, 1966 . .	158.7	150.4	152.9	147.4	153.7	149.5	154.1

(a) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Weighted average standard weekly hours of work

The 40-hour week has operated in Australia generally from 1 January 1948, and in New South Wales from 1 July 1947 (*see* page 322.) However, as stated on page 322, the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or between States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and agreements for a full working week, in respect of adult male workers in all industry groups, except Rural, and Shipping and stevedoring, at 31 December 1965, were: New South Wales, 39.95; Victoria, 39.97; Queensland, 39.98; South Australia, 39.96; Western Australia, 39.89; Tasmania, 39.97; Australia, 39.96. Corresponding figures for adult female workers at 31 December 1965 were: New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.56; Australia, 39.67.

Average weekly earnings

The figures in this section are derived from particulars of employment and of wages and salaries recorded on pay-roll tax returns, from other direct collections, and from estimates of the unrecorded balance. The figures relate to civilians only.

Particulars of wages and salaries paid are not available for males and females separately from these sources; average weekly earnings have therefore been calculated in terms of male units i.e. total male employees plus fifty per cent of female employees. This proportion is derived from the estimated ratio of female to male earnings in Australia. As it was not possible to estimate the ratio of female to male earnings in the several States the same ratio has been used in each State. Because the actual ratio may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures shown in the following table. Quarterly figures corresponding to those shown in the table are published in the monthly bulletin *Wage Rates and Earnings* and in the *Monthly Review of Business Statistics.*

Particulars of average weekly earnings per employed male unit are shown in the following table for each of the years 1956–57 to 1965–66.

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT(*a*): STATES 1956-57 TO 1965-66

($)

Year	N.S.W. (*b*)	Vic.	Qld	S.A. (*c*)	W.A.	Tas.	Aust.
1956–57 . .	39.90	39.60	34.80	36.70	35.00	37.70	38.40
1957–58 . .	41.00	40.70	35.70	37.70	36.20	38.30	39.50
1958–59 . .	42.30	42.00	37.20	38.60	36.60	39.20	40.70
1959–60 . .	45.70	45.50	39.40	41.80	39.20	41.90	43.90
1960–61 . .	48.10	47.20	41.60	43.40	41.60	43.30	46.00
1961–62 . .	49.10	48.50	43 20	44.70	43.00	45.30	47.20
1962–63 . .	50.20	50.10	44 40	45.80	44.20	45.90	48.40
1963–64 . .	52.60	52.50	46.90	48.20	47.20	48 40	50.90
1964–65 . .	56 50	56.40	50.40	52 00	49.50	51 00	54.60
1965–66 . .	58.60	59.20	52.50	53.80	54.10	53.80	57.00

(*a*) Includes, in addition to wages at award rates, earnings of salaried employees, overtime earnings, over-award and bonus payments, payments made in advance or retrospectively during the periods specified, etc. *See* explanatory notes above. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

The following table shows, for 'All industries' and for 'Manufacturing', the movement in average weekly earnings from 1956–57 to December quarter 1966. The 'All industries' index is based on pay-roll tax returns and other data. It relates to average weekly earnings per employed male unit. The index for manufacturing industries for the years to 1965–66 is based on the average earnings of male wage and salary earners employed in factories as disclosed by annual factory censuses (*see* the chapter Manufacturing Industry); figures for quarters subsequent to June quarter 1966 are preliminary estimates based on pay-roll tax returns.

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT

AUSTRALIA, 1956 TO 1966

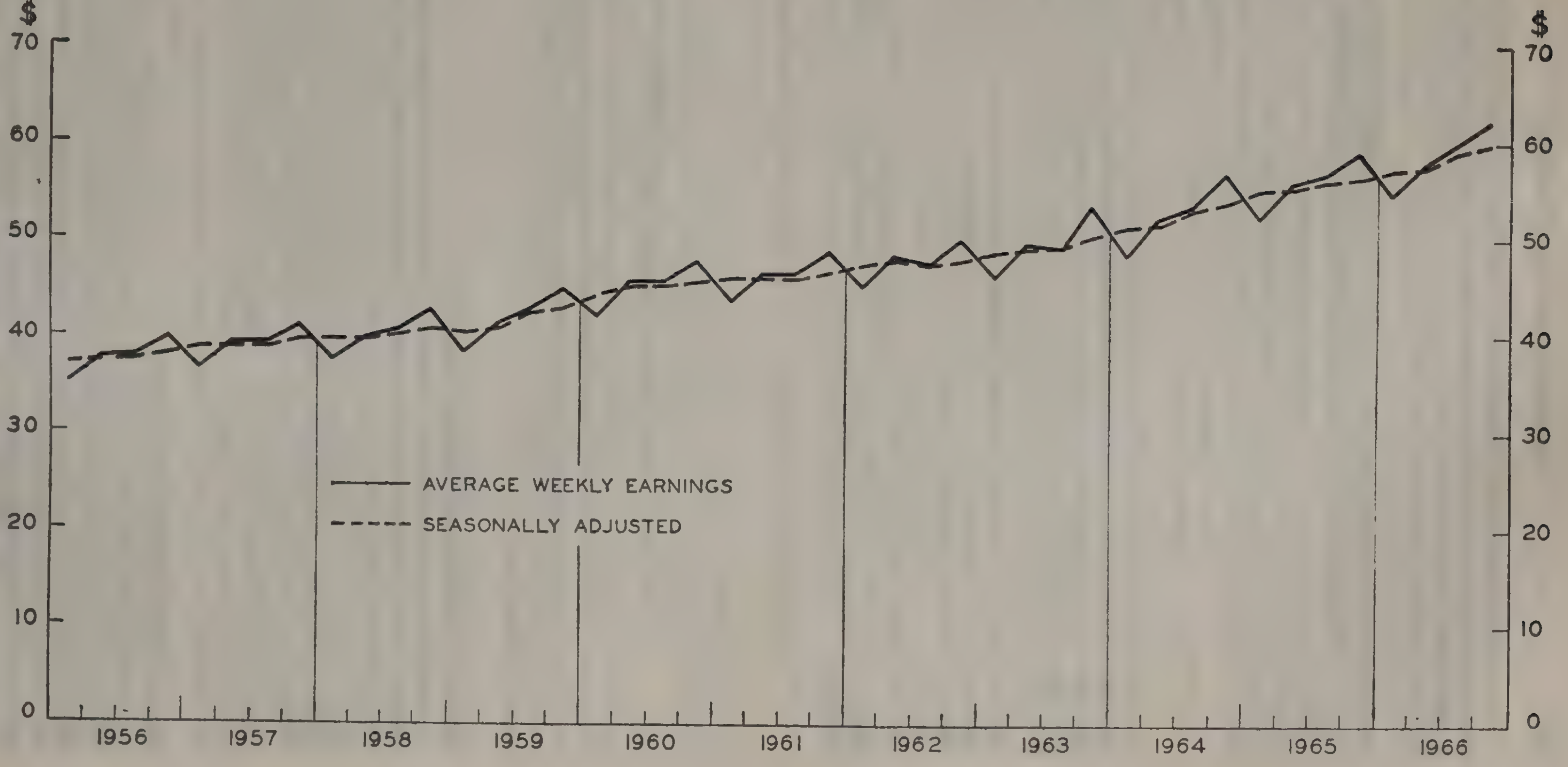


PLATE 24

The index numbers for 'All industries' and 'Manufacturing' show the movement in average earnings for each group over a period of time. However, they do not give, at any point of time, a comparison of actual earnings in the two groups. The base of each series is the year 1953–54 = 100, and both series have been seasonally adjusted.

INDEXES OF AVERAGE WEEKLY EARNINGS(a): AUSTRALIA, YEARS 1956-57 TO 1965–66 AND QUARTERS SEPTEMBER 1964 TO DECEMBER 1966

SEASONALLY ADJUSTED

(*Base of each index: year* 1953–54 = 100)

Year	All industries (b)	Manufacturing	Quarter	All industries (b)	Manufacturing
1953–54	100.0	100.0	1964–65—September	163.6	165.3
1956–57	117.7	118.3	December	165.5	164.2
1957–58	120.8	122.0	March	169.7	168.4
1958–59	124.5	125.6	June	170.3	170.4
1959–60	134.3	135.4	1965–66—September	172.4	171.8
1960–61	140.6	141.1	December	173.6	172.3
1961–62	144.7	143.4	March	175.9	173.0
1962–63	148.3	147.7	June	176.4	175.4
1963–64	155.9	154.8	1966–67—September	182.0	180.8
1964–65	167.3	167.1	December	183.7	
1965–66	174.6	173.4			

(a) *See* footnote (a) to table on page 324. (b) Average earnings per employed male unit.

Surveys of wage rates, earnings and hours, 1960 to 1964

Since 1960 a number of statistical surveys of wages and hours of work in Australia have been undertaken by this Bureau. The object of these surveys has been to obtain information on wage rates, actual weekly earnings and hours of work on a more comprehensive scale than previously available in Australia. A summary of the scope and coverage of each of these surveys is shown on the following pages.

Survey of Wage Rates and Earnings, September 1960

This survey, relating to the last pay-period in September 1960, obtained information about marginal rates of wage and the dissection and distribution of actual weekly earnings of adult male employees (excluding part-time and casual employees). In addition to the exclusion of government and semi-government employees, and private employees in rural industry and in private domestic service, the survey did not cover the following—shipping and stevedoring industries; the motion picture industry; certain businesses such as those of accountants, consultant engineers, etc.; and trade associations, etc. The survey was based on a stratified random sample of private employers in other industries who were subject to pay-roll tax (that is, employers paying more than $400 a week in wages and salaries). For information on the results of the survey *see* Year Book No. 51, pages 439 to 442.

Survey of Weekly Earnings, October 1961

This survey was conducted for the last pay-period in October 1961 and provided information about the distribution of actual weekly earnings for adult male employees (excluding part-time and casual employees). The survey did not cover government or semi-government employees, private employees in rural industry and in private domestic service, or employees not liable to pay-roll tax. The survey was based on a stratified random sample of private employers in other industries who were subject to pay-roll tax (that is, employers paying more than $400 a week in wages and salaries). The results of the survey were published in Year Book No. 51, pages 442–4.

Surveys of Weekly Earnings and Hours, October 1962, October 1963, and October 1964

Sample surveys of earnings and hours in respect of most private employers subject to pay-roll tax (i.e. those paying more than $400 a week in wages and salaries) have been conducted as at the last pay-period in October for the years 1962, 1963 and 1964. Some results of the 1962, 1963 and 1964 surveys are shown in the following table. Further particulars were published in the previous issue of the Year Book.

Figures for average weekly earnings, average weekly hours paid for, and average hourly earnings as at the selected pay-periods are shown for males and females (adult and junior) separately by industry groups and by States. They reflect the effects of differences (and of changes between the points of time) in amounts paid for the various occupations; in amounts paid for the same occupations; in occupational structures within industries; in industry structure; in degrees of business activity (incidence of overtime, etc.); and in incidence of incentive schemes, piece-work and profit-sharing scheme payments, etc.

Coverage of surveys

The results of the surveys were based on returns from stratified random samples of private employers subject to pay-roll tax. Employees in rural industry and in private domestic service were excluded because most employers in these two industries are not subject to pay-roll tax. Also excluded from the surveys were—employees of government and semi-government authorities; employees of religious, benevolent and other similar organisations exempt from pay-roll tax; and all employees in the Northern Territory and the Australian Capital Territory. The earnings and hours of waterside workers employed on a casual basis have been excluded because they are subject to wide fluctuations for short periods such as those covered by these surveys. Approximately 3,550 employers were included in the October 1964 survey and the sample represented 1,359,000 male and 568,200 female wage and salary earners.

The figures contained in the tables in this section are for 'Employees (other than part-time) whose hours of work were known' as defined below. Because of the heterogeneity of the data combined with high sampling variability, figures relating to other employees (part-time workers, executives, etc., and those whose hours of work were not known) are not available for publication.

Comparability of results of surveys

Since the survey estimates are based on a sample they are subject to sampling variability, that is, variations which might occur by chance because only samples of employers were surveyed. In addition to affecting the results of each sample such aspects also affect comparison between each year's results.

A broad comparison by States of the 1962, 1963 and 1964 surveys is shown on page 328.

Definitions of terms used in surveys

The following definitions refer to terms used in the surveys and in the tables in this section.

Employees refer to male and female employees on the pay-roll for the last pay-period in October.

Employees whose hours of work were known exclude (i) all managerial, executive, professional and higher supervisory staff, whether or not their hours of work were known, and (ii) any other employees whose hours of work were not known. They comprise all other employees who received pay for the last pay-period in October and whose hours of work were known (including foremen, transport supervisors, floor-walkers, other minor supervisory employees, clerical and office staff, etc.).

Part-time employees refer to employees who ordinarily worked less than thirty hours a week. Employees on short-time who normally worked thirty hours or more a week were classified as 'other than part-time.'

Adults include employees who, although under twenty-one years of age, were paid at the adult rate for their occupation.

Juniors are those employees under twenty-one years of age who were not paid at the adult rate for their occupation.

Earnings (i.e. gross earnings, before taxation and other deductions) include ordinary time and overtime earnings, payments for sick leave and holidays, commission, and all other payments such as incentive scheme, piecework and profit-sharing scheme payments, etc., and bonus payments of any kind. Annual or other periodical bonuses have been included only at the appropriate proportion for one week. For employees paid other than weekly, only the proportion of earnings equivalent to one week has been included.

Weekly hours paid for include ordinary time and overtime hours, paid stand-by or reporting time, paid sick leave, and paid holidays. For employees paid other than weekly, hours have been converted to the equivalent for one week.

In the following table the average weekly earnings, average weekly hours paid for, and average hourly earnings at the last pay-period in October for the years 1962, 1963 and 1964 are shown for males and females (adult and junior), other than part-time, by State.

AVERAGE EARNINGS AND HOURS FOR EMPLOYEES (OTHER THAN PART-TIME) WHOSE HOURS OF WORK WERE KNOWN(*a*), ALL INDUSTRY GROUPS STATES, OCTOBER 1962 TO 1964(*b*)

State	Average weekly earnings ($)			Average weekly hours paid for			Average hourly earnings ($)		
	October 1962	October 1963	October 1964	October 1962	October 1963	October 1964	October 1962	October 1963	October 1964
ADULT MALES									
N.S.W.	51.00	52.70	56.70	42.1	42.1	42.8	1.21	1.25	1.32
Vic.	49.70	51.70	55.80	42.4	42.8	42.9	1.17	1.21	1.30
Qld	46.20	48.50	52.30	42.1	42.2	43.1	1.10	1.15	1.21
S.A.	47.00	49.30	53.60	42.3	42.7	43.2	1.11	1.15	1.24
W.A.	47.70	47.20	49.90	41.7	41.4	42.2	1.14	1.14	1.18
Tas.	47.50	48.90	52.40	40.6	41.4	41.7	1.17	1.18	1.26
Australia(*c*)	**49.40**	**51.20**	**55.20**	**42.1**	**42.3**	**42.8**	**1.17**	**1.21**	**1.29**
JUNIOR MALES									
N.S.W.	24.20	24.60	27.20	40.2	40.4	40.8	0.60	0.61	0.67
Vic.	23.00	23.70	26.80	40.3	40.6	40.8	0.57	0.58	0.66
Qld	21.80	22.50	24.40	40.2	40.7	40.9	0.54	0.55	0.60
S.A.	21.20	22.50	24.80	40.5	41.2	40.9	0.52	0.55	0.61
W.A.	19.80	20.70	21.40	40.3	40.4	40.8	0.49	0.51	0.53
Tas.	22.60	22.70	24.40	39.8	40.2	40.1	0.57	0.56	0.61
Australia(*c*)	**22.90**	**23.50**	**25.90**	**40.2**	**40.5**	**40.8**	**0.57**	**0.58**	**0.64**
ADULT FEMALES									
N.S.W.	30.80	31.50	33.40	38.9	39.0	39.2	0.79	0.81	0.85
Vic.	29.70	30.20	32.60	39.1	39.4	39.4	0.76	0.77	0.83
Qld	28.60	29.30	30.90	39.6	39.5	39.7	0.72	0.74	0.78
S.A.	28.60	28.50	31.10	39.4	40.0	40.0	0.73	0.71	0.78
W.A.	28.60	29.50	30.50	39.4	39.6	39.7	0.72	0.75	0.77
Tas.	28.70	29.10	30.60	39.5	39.2	39.0	0.73	0.74	0.78
Australia(*c*)	**30.00**	**30.50**	**32.60**	**39.1**	**39.3**	**39.4**	**0.77**	**0.78**	**0.83**
JUNIOR FEMALES									
N.S.W.	20.00	20.60	22.00	39.2	38.9	39.2	0.51	0.53	0.56
Vic.	19.80	19.50	21.70	39.2	38.8	39.1	0.50	0.50	0.55
Qld	17.80	17.90	19.10	39.6	39.2	39.8	0.45	0.46	0.48
S.A.	18.00	18.20	20.10	39.2	39.3	39.4	0.46	0.46	0.51
W.A.	16.90	17.20	17.40	39.4	39.9	39.5	0.43	0.43	0.44
Tas.	17.80	18.40	19.40	39.4	39.1	39.7	0.45	0.47	0.49
Australia(*c*)	**19.20**	**19.40**	**20.90**	**39.3**	**39.0**	**39.3**	**0.49**	**0.50**	**0.53**

(*a*) Private employees only. Excludes managerial, executive, professional and higher supervisory staff, whether or not their hours of work were known, and all other employees whose hours of work were not known. (*b*) Last pay-period in October. For definitions and particulars of the coverage of the surveys, etc., *see* page 327. (*c*) Excludes Northern Territory and Australian Capital Territory.

Survey of Weekly Earnings, October 1965

A survey of weekly earnings of male employees was conducted for the last pay-period in October 1965. The survey was conducted by means of: (i) a sample of private employers subject to pay-roll tax (that is those paying more than $400 a week in wages and salaries); (ii) a complete coverage of Commonwealth and State government departments and semi-government authorities; and (iii) a sample of local government authorities. It related to certain specified industry groups only.

The industry groups excluded from this survey were: primary production; finance and property; public authority activities, n.e.i. (e.g. Commonwealth, State and local government administration); community and business services; amusement, hotels, cafés, personal services, etc. The survey also excluded waterside workers employed on a casual basis, and all employees in the Northern Territory and the Australian Capital Territory. The industry classification adopted is that used for the 1961 population census.

The object of the survey was to obtain estimates of the numbers and proportions of full-time adult male employees in various weekly earnings groups (*see* pages 333–4) and a dissection of total weekly earnings paid to full-time adult males (*see* pages 335–8) into: (i) overtime earnings; (ii) ordinary time earnings at 'award, etc. rates'; and (iii) ordinary time earnings in excess of those at 'award, etc. rates' (divided into (*a*) payment by measured result and (*b*) other) as defined below. The survey also provided figures of average weekly earnings for full-time adult male and junior male employees (*see* pages 331–2). Separate details were obtained for: (i) managerial, executive, professional and higher supervisory staff, and (ii) other full-time male employees. The results of the survey are shown below in broad detail only. For further details *see* the mimeographed statement S.B. 391, *Survey of Weekly Earnings* October 1965 or *Labour Report* No. 52, 1965 and 1966.

Information of a similar type was obtained in respect of September 1960 from a sample survey of private employers only. However, the 1965 survey, as well as adopting the standard industry classification used for the 1961 population census, differs from the 1960 survey also in the range of industries included. In addition, the 1965 survey was on a more comprehensive basis than that in 1960. For these reasons, and also because of the possible effects of sampling variability, no comparison has been attempted.

Coverage

The 1965 survey related to private and government employees in the specified industry groups.

Private employers were surveyed by means of a stratified random sample of those employers subject to pay-roll tax. Approximately 3,000 private employers were included in the survey, and completed returns were received from over 99 9 per cent of them. The results of the survey of private employers were representative of the experience of an estimated 1,181,000 full-time adult male employees. In the government (i.e. Commonwealth, State and local) sector the survey covered 409,000 full-time male employees.

The sample of private employers had to be restricted to those subject to pay-roll tax. The industry classification of these employers was generally according to major activity. Mainly for these reasons, the survey estimates of total numbers of private and government employees do not correspond to totals of employment of all adult males in the specified industries.

Results of the survey

As the private employer part of the survey was based on a sample, the resultant estimates are subject to sampling variability, that is, variations which might occur by chance because only a sample of employers were surveyed.

The estimates are shown for adult males classified by industry group, by State, and by government or private employment. Therefore, reflected in these estimates will be the effects of differences in amounts paid for the various occupations; of differences in amounts paid for the same occupations; of differences in occupational structure within industries; and of differences in industry structure, both as between States and as between government and private employment.

Employers (private and government) were asked to comment on any full-time adult male employees shown as earning *less than* $30, or $30 *and less than* $32 in the survey week. From these comments it was possible to omit from these two weekly earnings groups those adult males who were not paid for a full week. Those who were confirmed as full-time adult males being paid for a full week and earning less than $32 represented a total of approximately 300. They were reported by respondents as being 'persons on the basic wage', 'adult messengers', 'elderly persons', 'persons on training rate', 'salesmen earning retainer only in the specified week', etc. Similarly it is probable that in completed returns there were a number of employees who earned $32 and over in the specified pay-period even though they were not paid for a full week. It has not been possible to ensure that all such employees have been omitted from these estimates for 'full-time' adult males.

On the return forms the categories *managerial, executive, professional and higher supervisory staff*, and *all other full-time employees* were defined. However, the allocation of employees between these categories depended on the judgment of the individual employers (both private and government) completing the returns.

The tables on pages 335–8 show estimates of the average amounts and of the relative importance of the components of total weekly earnings (i.e. overtime earnings, ordinary time earnings at 'award, etc. rates', and ordinary time earnings in excess of those at 'award, etc. rates'). These details were obtained from each employer in the form of totals for each component part in respect of all his full-time adult male employees. Details were not sought of the number of employees receiving various amounts of these components, and thus no information is available about the distribution of employees about the averages. The averages shown for these components relate to the total of all employees in the survey, not just to the number of employees who received payment in these categories.

In the tables showing estimates of average earnings (or dissections of average earnings) the estimates have been rounded to the nearest 10 cents.

When using the estimates of *ordinary time earnings at award, etc. rates* it should be borne in mind that, in addition to minimum award rates specified for particular occupations, this category was defined to include all loadings, allowances, etc., prescribed in the awards, etc. In addition, for employees not covered by an award, etc., the normal (or agreed) rates of pay for normal hours of work were defined as coming within the scope of *ordinary time earnings at award, etc., rates.*

Definitions

The following definitions refer to terms used in the survey and in the following tables.

Adult males include all male employees over twenty-one years of age and those males who, although under twenty-one years of age, are paid at the adult rate for their occupation. *Junior males* include all other males under twenty-one years of age.

Full-time male employees were defined as those who ordinarily work thirty hours or more a week. Employees on 'short-time' or those who began or ceased work during the specified week and part-time employees were excluded from this survey. Instructions were also given that employees who were not paid for a full week's work because of absenteeism, sickness, accident, etc. were to be excluded.

Other than managerial, etc., staff includes minor supervisory staff, leading hands, clerical and office staff as well as ordinary wages employees. It excludes *managerial, executive, professional and higher supervisory staff* which were not further defined.

Private employees represents employees of private employers.

Government employees represents employees of Commonwealth and State government departments and semi-government authorities and of local government bodies.

Total weekly earnings refers to gross earnings of male employees for the last pay-period in October 1965 before taxation and other deductions. It includes payments directly attributable to work performed during the week for which payment was made (or to sick leave taken), e.g. ordinary time, overtime, shift allowances, penalty rates, commission (if paid weekly), and similar payments. For payments made other than on a weekly basis only one week's proportion is included, for example, salaries paid fortnightly or monthly; payment for those on annual leave; periodical payments under incentive, piecework, commission, profit sharing schemes, etc.; annual or other periodical bonuses, etc. Retrospective payments are excluded.

Overtime earnings represents that part of total weekly earnings of full-time adult male employees for the last pay-period in October 1965 for time worked in excess of award hours, or, in the case of those employees not affected by awards, etc., in excess of standard, or agreed, hours of work.

Awards or registered agreements refers to awards or determinations of, or agreements registered with, Commonwealth or State industrial tribunals.

Ordinary time earnings at award, etc. rates comprises:

(i) where there was an appropriate award or registered agreement operating, the rates specified in the award for the hours of work paid for (up to the award hours) plus any other payments (excepting overtime), e.g. dirt money; height money; penalty rates; shift work, confined spaces, tool, leading hand, camping, etc., allowances; lead bonus and other loadings provided for in the award or registered agreement and at the rates specified in the award or registered agreement;

(ii) where there was no appropriate award or registered agreement operating (including the case of managerial, executive, professional and higher supervisory staff not covered by awards), the rates of pay for hours of work covered by an unregistered agreement (if one existed) plus other payments (excepting overtime) similar to those specified in (i) above, if provided for in the agreement; otherwise the terms of employment as agreed for each person for wages, salaries, retainers, hours of work, etc. (excluding commission, and annual or half-yearly, etc. bonuses) relating to a normal working week were used;

(iii) for employees under incentive, piecework, etc., schemes, only that part of their ordinary time earnings such as retainers, base rates or award minima.

Ordinary time earnings in excess of those at award, etc. rates:

(i) *Based on payment by measured result* includes that part of earnings in excess of award or agreed base rate earnings, which is variable from one period to another depending on measured performance of the employees, for example, incentive payment schemes, piecework, task bonus, commission, etc.;

(ii) *Other* includes all ordinary time earnings in excess of those at 'award, etc. rates' not described in (i) above; included were special attendance or good time-keeping bonuses, proportion of annual or other periodical bonuses, profit sharing scheme earnings and any other forms of over-award payments.

AVERAGE WEEKLY EARNINGS, FULL-TIME ADULT AND JUNIOR MALES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*), INDUSTRY GROUPS AUSTRALIA(*b*), OCTOBER 1965(*c*)

($)

Industry group	Adult males			Junior males		
	Private employees	Government employees	Total	Private employees	Government employees	Total
Manufacturing—						
Extracting, refining and founding of metals	61.80	54.90	61.80	28.80	(*d*)	28.80
Engineering and metalworking	60.20	57.60	60.10	27.10	31.10	27.20
Ships, vehicles, parts and accessories	57.60	54.10	56.50	26.30	24.20	25.60
Founding, engineering, vehicles, etc.	59.90	54.80	59.30	27.10	25.50	26.90
Textiles, clothing and footwear	53.90	50.50	53.80	26.10	(*d*)	26.10
Food, drink and tobacco	55.70	54.60	55.60	28.00	29.10	28.10
Paper, printing, bookbinding and photography	64.00	58.70	63.80	27.60	24.10	27.50
Chemicals, dyes, explosives, paints, non-mineral oils	58.20	54.30	58.10	30.10	27.30	30.00
Other	56.40	54.90	56.40	26.10	26.60	26.10
Manufacturing groups	*58.50*	*54.90*	*58.20*	*27.10*	*25.90*	*27.00*
Non-manufacturing—						
Mining and quarrying	71.90	73.20	72.00	31.90	31.70	31.90
Electricity, gas, water and sanitary services	55.20	57.10	56.90	30.20	29.50	29.60
Building and construction	66.00	51.20	57.60	27.00	27.60	27.20
Transport, storage and communication	64.20	59.10	60.30	26.90	25.90	26.00
Wholesale trade, primary produce dealing, etc.	54.20	53.60	54.20	25.70	(*d*)	25.80
Retail trade	50.50	53.00	50.60	24.50	29.90	24.50
Non-manufacturing groups	*58.90*	*56.00*	*57.60*	*25.60*	*26.90*	*26.00*
All industries(*e*)	58.70	55.80	57.90	26.40	26.70	26.50

(*a*) Excludes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey, etc. *see* pages 329–31. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October 1965. (*d*) Less than 50 employees. (*e*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusement, hotels, cafés, personal service, etc.

AVERAGE WEEKLY EARNINGS, FULL-TIME ADULT AND JUNIOR MALES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*), INDUSTRY GROUPS STATES, OCTOBER 1965(*c*)

($)

Industry group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*b*)
ADULT MALES							
PRIVATE EMPLOYEES							
Manufacturing—							
Founding, engineering, vehicles, etc.	61.40	60.40	53.50	57.10	56.20	60.40	59.90
Other	58.50	58.20	55.10	54.20	52.10	53.40	57.20
Manufacturing groups	*60.10*	*59.20*	*54.60*	*56.00*	*53.80*	*55.50*	*58.50*
Non-manufacturing	62.00	57.60	56.60	55.00	58.20	57.30	58.90
All industries(*e*)	60.70	58.70	55.60	55.70	56.30	56.30	58.70
GOVERNMENT EMPLOYEES							
Manufacturing—							
Founding, engineering, vehicles, etc.	53.00	58.90	54.40	55.00	49.10	42.60	54.80
Other	52.20	57.50	48.70	62.80	54.00	54.20	55.20
Manufacturing groups	*52.80*	*58.50*	*53.20*	*56.70*	*50.30*	*46.20*	*54.90*
Non-manufacturing	57.50	58.00	51.40	53.70	55.30	52.90	56.00
All industries(*e*)	56.90	58.10	51.70	54.50	54.60	52.50	55.80
TOTAL							
Manufacturing—							
Founding, engineering, vehicles, etc.	60.70	60.20	53.80	56.80	54.50	58.90	59.30
Other	58.30	58.20	54.90	54.90	52.30	53.40	57.10
Manufacturing groups	*59.60*	*59.20*	*54.40*	*56.10*	*53.30*	*55.10*	*58.20*
Non-manufacturing	59.90	57.80	54.10	54.40	57.00	55.10	57.60
All industries(*e*)	59.70	58.50	54.20	55.30	55.80	55.10	57.90
JUNIOR MALES							
PRIVATE EMPLOYEES							
Manufacturing—							
Founding, engineering, vehicles, etc.	27.60	27.70	25.20	27.10	24.10	26.30	27.10
Other	27.80	28.00	25.90	24.70	24.10	26.90	27.00
Manufacturing groups	*27.80*	*27.90*	*25.60*	*26.10*	*24.10*	*26.70*	*27.10*
Non-manufacturing	26.60	25.70	24.80	25.20	23.70	23.70	25.60
All industries(*e*)	27.30	27.00	25.30	25.70	23.90	25.30	26.40
GOVERNMENT EMPLOYEES							
Manufacturing—							
Founding, engineering, vehicles, etc.	23.50	26.10	24.60	31.60	23.20	22.80	25.50
Other	25.90	27.90	26.90	37.60	21.20	23.30	27.50
Manufacturing groups	*24.00*	*26.30*	*25.20*	*32.70*	*22.80*	*23.00*	*25.90*
Non-manufacturing	27.10	27.90	26.10	25.60	24.90	27.50	26.90
All industries(*e*)	26.40	27.60	25.90	27.70	24.40	27.00	26.70
TOTAL							
Manufacturing—							
Founding, engineering, vehicles, etc.	27.30	27.50	25.10	27.90	23.90	26.00	26.90
Other	27.70	28.00	25.90	25.60	24.00	26.80	27.00
Manufacturing groups	*27.50*	*27.70*	*25.60*	*27.00*	*23.90*	*26.50*	*27.00*
Non-manufacturing	26.80	26.50	25.30	25.30	24.10	24.90	26.00
All industries(*e*)	27.10	27.10	25.40	26.10	24.00	25.60	26.50

For footnotes *see* previous table.

TOTAL (PRIVATE AND GOVERNMENT) EMPLOYEES, FULL-TIME ADULT MALE EMPLOYEES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*), TOTAL WEEKLY EARNINGS AND INDUSTRY GROUPS: AUSTRALIA(*b*), OCTOBER 1965(*c*)

('000)

Industry group	Less than $36(*d*)	$36 and less than $40	$40 and less than $44	$44 and less than $48	$48 and less than $52	$52 and less than $56
Manufacturing—						
Extracting, refining and founding of metals	0.7	2.2	3.2	4.5	5.6	6.2
Engineering and metalworking	4.6	11.3	16.9	19.7	21.4	19.8
Ships, vehicles, parts and accessories	1.9	5.1	11.0	18.5	15.9	14.0
Founding, engineering, vehicles, etc.	7.2	18.6	31.1	42.7	43.0	40.0
Textiles, clothing and footwear	1.0	2.9	5.5	6.4	5.5	4.6
Food, drink and tobacco	2.0	7.6	13.1	11.5	12.6	10.6
Paper, printing, bookbinding and photography	0.7	1.6	2.8	3.9	5.1	5.5
Chemicals, dyes, explosives, paints, non-mineral oils	0.5	2.1	3.0	3.5	3.8	4.0
Other	4.2	10.6	13.8	14.7	14.7	14.1
Manufacturing groups	*15.6*	*43.4*	*69.1*	*82.7*	*84.7*	*78.8*
Non-manufacturing—						
Mining and quarrying	0.7	1.1	1.6	1.8	2.0	2.4
Electricity, gas, water and sanitary services	0.9	3.8	9.9	8.4	11.7	8.4
Building and construction	6.5	15.5	28.8	24.8	26.0	23.7
Transport, storage and communication	2.4	9.4	17.4	21.7	22.0	21.0
Wholesale trade, primary produce dealing, etc.	2.4	11.8	21.6	19.6	20.3	16.4
Retail trade	1.6	8.8	15.8	14.7	13.4	9.2
Non-manufacturing groups	*14.6*	*50.5*	*95.0*	*91.0*	*95.4*	*81.2*
All industries(*e*)	**30.2**	**93.9**	**164.1**	**173.7**	**180.1**	**159.9**

Industry group	$56 and less than $60	$60 and less than $70	$70 and less than $80	$80 and over	Total
Manufacturing—					
Extracting, refining and founding of metals	6.1	12.3	7.4	7.0	55.3
Engineering and metalworking	20.5	37.8	23.9	21.2	197.1
Ships, vehicles, parts and accessories	9.5	16.5	8.0	7.6	107.9
Founding, engineering, vehicles, etc.	36.2	66.6	39.2	35.7	360.3
Textiles, clothing and footwear	3.7	5.5	2.6	1.8	39.4
Food, drink and tobacco	9.4	13.6	7.2	6.3	93.9
Paper, printing, bookbinding and photography	5.2	10.0	6.2	7.3	48.2
Chemicals, dyes, explosives, paints, non-mineral oils	3.3	5.7	3.0	2.3	31.2
Other	11.3	18.3	10.4	9.2	121.3
Manufacturing groups	*69.0*	*119.8*	*68.7*	*62.6*	*694.3*
Non-manufacturing—					
Mining and quarrying	2.8	7.9	7.1	11.9	39.3
Electricity, gas, water and sanitary services	6.6	10.1	5.9	5.9	71.7
Building and construction	18.8	27.6	16.4	22.4	210.6
Transport, storage and communication	19.2	34.5	20.8	22.0	190.5
Wholesale trade, primary produce dealing, etc.	12.0	17.4	9.0	7.6	138.1
Retail trade	5.7	7.5	2.3	2.5	81.4
Non-manufacturing groups	*65.2*	*105.0*	*61.6*	*72.3*	*731.6*
All industries(*e*)	**134.2**	**224.7**	**130.3**	**134.9**	**1,426.0**

(*a*) Excludes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey, etc. *see* pages 329–31. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October 1965. (*d*) Includes some employees who received less than $32: *see* page 329. (*e*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusement, hotels, cafés, personal service, etc.

TOTAL (PRIVATE AND GOVERNMENT) EMPLOYEES, FULL-TIME ADULT MALE EMPLOYEES (OTHER THAN MANAGERIAL, ETC., STAFF)(*a*), TOTAL WEEKLY EARNINGS AND INDUSTRY GROUPS: STATES, OCTOBER 1965(*b*)

('000)

Total weekly earnings group	NEW SOUTH WALES			VICTORIA			QUEENSLAND		
	Manufacturing	Non-manufacturing	Total (*c*)	Manufacturing	Non-manufacturing	Total (*c*)	Manufacturing	Non-manufacturing	Total (*c*)
Less than $36(*d*)	5.4	4.3	9.7	3.6	1.6	5.2	2.2	4.6	6.8
$36 and less than $40	16.1	15.4	31.5	11.4	10.4	21.9	5.7	10.0	15.7
$40 " " " $44	26.3	33.1	59.4	19.8	24.3	44.0	8.7	16.1	24.8
$44 " " " $48	32.1	32.7	64.8	24.2	24.7	48.9	9.3	13.1	22.4
$48 " " " $52	32.6	32.8	65.5	27.6	28.3	55.9	9.3	14.1	23.4
$52 " " " $56	32.6	30.9	63.5	24.6	23.1	47.7	7.2	11.5	18.7
$56 " " " $60	28.5	24.8	53.3	22.8	19.4	42.2	6.4	8.7	15.1
$60 " " " $70	53.8	43.4	97.1	38.1	29.4	67.5	8.8	12.6	21.4
$70 " " " $80	30.8	27.2	58.1	23.5	17.1	40.6	4.3	6.7	11.0
$80 and over	29.9	34.1	64.1	21.1	18.5	39.6	3.9	7.5	11.4
Total	**288.2**	**278.7**	**566.9**	**216.7**	**196.8**	**413.5**	**65.7**	**105.0**	**170.7**

Total weekly earnings group	SOUTH AUSTRALIA			WESTERN AUSTRALIA			TASMANIA		
	Manufacturing	Non-manufacturing	Total (*c*)	Manufacturing	Non-manufacturing	Total (*c*)	Manufacturing	Non-manufacturing	Total (*c*)
Less than $36(*d*)	2.4	1.4	3.8	1.6	1.9	3.6	0.5	0.7	1.2
$36 and less than $40	4.9	5.9	10.8	3.4	6.4	9.8	1.9	2.3	4.2
$40 " " " $44	8.2	9.3	17.5	3.9	7.9	11.8	2.1	4.5	6.6
$44 " " " $48	10.4	8.7	19.2	4.4	8.0	12.4	2.3	3.7	6.0
$48 " " " $52	9.5	9.6	19.1	3.9	7.6	11.5	1.9	3.0	4.9
$52 " " " $56	9.9	7.1	17.0	2.8	6.1	8.9	1.7	2.4	4.1
$56 " " " $60	7.1	5.5	12.6	2.5	4.6	7.1	1.8	2.1	3.8
$60 " " " $70	12.1	8.6	20.8	4.1	8.2	12.3	2.9	2.8	5.7
$70 " " " $80	11.2	8.2	11.0	2.1	4.4	6.5	1.5	1.6	3.1
$80 and over			8.4	1.6	6.2	7.9	1.2	2.3	3.5
Total	**75.7**	**64.4**	**140.0**	**30.3**	**61.3**	**91.7**	**17.7**	**25.4**	**43.2**

(*a*) Excludes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey, etc., *see* pages 329–31. (*b*) Last pay-period in October 1965. (*c*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusements, hotels, cafés, personal services, etc. (*d*) Includes some employees who received less than $32; *see* page 329.

DISSECTION OF TOTAL WEEKLY EARNINGS AND AVERAGE EARNINGS PER EMPLOYEE, FULL-TIME ADULT MALES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*), INDUSTRY GROUPS: AUSTRALIA(*b*), OCTOBER 1965(*c*)

TOTAL (PRIVATE AND GOVERNMENT) EMPLOYEES

Industry group	Percentage of total earnings(*d*)				
	Overtime earnings	Ordinary time earnings			Total
		At 'award, etc., rates'	In excess of 'award, etc., rates'		
			Payment by measured result	Other	
Manufacturing—	%	%	%	%	%
Extracting, refining and founding of metals	16.6	73.7	6.6	3.1	100.0
Engineering and metal working	18.2	71.2	10.6		100.0
Ships, vehicles, parts and accessories	11.5	80.8	1.2	6.5	100.0
Founding, engineering, vehicles, etc.	16.0	74.3	3.1	6.6	100.0
Textiles, clothing and footwear	12.4	76.0	5.9	5.7	100.0
Food, drink and tobacco	16.1	78.2	5.7		100.0
Paper, printing, bookbinding and photography	11.7	77.0	3.6	7.7	100.0
Chemicals, dyes, explosives, paints, non-mineral oils	11.1	78.9	4.0	6.0	100.0
Other	15.5	75.7	8.8		100.0
Manufacturing groups	*15.2*	*75.5*	*3.3*	*6.0*	*100.0*
Non-manufacturing—					
Mining and quarrying	13.2	72.6	11.9	2.3	100.0
Electricity, gas, water and sanitary services	8.3	90.5	0.1	1.1	100.0
Building and construction	14.5	81.9	3.6		100.0
Transport, storage and communication	14.3	83.9	1.8		100.0
Wholesale trade, primary produce dealing, etc.	8.1	82.1	2.9	6.9	100.0
Retail trade	6.4	82.8	10.8		100.0
Non-manufacturing groups	*11.8*	*82.8*	*2.0*	*3.4*	*100.0*
All industries(*e*)	**13.5**	**79.2**	**2.6**	**4.7**	**100.0**

(*a*) Excludes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey, etc., *see* pages 329–31. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October 1965. (*d*) *See* page 330. (*e*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusement, hotels, cafés, personal service, etc.

DISSECTION OF TOTAL WEEKLY EARNINGS AND AVERAGE EARNINGS PER EMPLOYEE, FULL-TIME ADULT MALES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*), INDUSTRY GROUPS: AUSTRALIA(*b*), OCTOBER 1965(*c*)—*continued*

TOTAL (PRIVATE AND GOVERNMENT) EMPLOYEES—*continued*

Industry group	Average earnings per employee(*d*)				
	Overtime earnings	Ordinary time earnings			Total
		At 'award, etc., rates'	In excess of 'award, etc., rates'		
			Payment by measured result	Other	
	$	$	$	$	$
Manufacturing—					
Extracting, refining and founding of metals	10.30	45.50	4.10	1.90	61.80
Engineering and metal working	10.90	42.80	6.40		60.10
Ships, vehicles, parts and accessories	6.50	45.60	0.70	3.70	56.50
Founding, engineering, vehicles, etc.	9.50	44.10	1.80	3.90	59.30
Textiles, clothing and footwear	6.70	40.90	3.20	3.10	53.80
Food, drink and tobacco	8.90	43.50	3.20		55.60
Paper, printing, bookbinding and photography	7.50	49.10	2.30	4.90	63.80
Chemicals, dyes, explosives, paints, non-mineral oils	6.40	45.80	2.30	3.50	58.10
Other	8.70	42.70	5.00		56.40
Manufacturing groups	*8.80*	*44.00*	*1.90*	*3.50*	*58.20*
Non-manufacturing—					
Mining and quarrying	9.50	52.30	8.60	1.60	72.00
Electricity, gas, water and sanitary services	4.70	51.50	0.10	0.60	56.90
Building and construction	8.30	47.20	2.10		57.60
Transport, storage and communication	8.60	50.60	1.10		60.30
Wholesale trade, primary produce dealing, etc.	4.40	44.50	1.60	3.70	54.20
Retail trade	3.30	41.90	5.40		50.60
Non-manufacturing groups	*6.80*	*47.70*	*1.20*	*2.00*	*57.60*
All industries(*e*)	**7.80**	**45.90**	**1.50**	**2.70**	**57.90**

(*a*) Excludes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey, etc., *see* pages 329–31. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October 1965. (*d*) *See* page 330. (*e*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusement, hotels cafés, personal service, etc.

DISSECTION OF AVERAGE WEEKLY EARNINGS PER EMPLOYEE FULL-TIME ADULT MALES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*) INDUSTRY GROUPS: STATES, OCTOBER 1965(*b*)

TOTAL (PRIVATE AND GOVERNMENT) EMPLOYEES

($)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.
MANUFACTURING						
Overtime earnings	9.50	9.00	8.40	7.50	7.70	5.70
Ordinary time earnings—						
At 'award, etc. rates'	44.00	44.20	43.70	44.10	42.40	45.30
In excess of 'award, etc. rates'—						
(i) Payment by measured result	2.60	1.70	2.30	4.50	3.10	4.10
(ii) Other	3.60	4.30				
Total	**59.60**	**59.20**	**54.40**	**56.10**	**53.30**	**55.10**
NON-MANUFACTURING						
Overtime earnings	7.40	6.70	5.30	5.90	8.20	5.80
Ordinary time earnings—						
At 'award, etc. rates'	49.30	47.40	46.60	45.70	45.60	46.30
In excess of 'award, etc. rates'—						
(i) Payment by measured result	1.40	3.70	2.20	2.80	3.20	3.00
(ii) Other	1.80					
Total	**59.90**	**57.80**	**54.10**	**54.40**	**57.00**	**55.10**
TOTAL(*c*)						
Overtime earnings	8.50	7.90	6.50	6.80	8.10	5.80
Ordinary time earnings—						
At 'award, etc. rates'	46.60	45.70	45.50	44.90	44.50	45.90
In excess of 'award, etc. rates'—						
(i) Payment by measured result	2.00	1.20	2.30	1.50	3.20	1.40
(ii) Other	2.70	3.60		2.30		2.00
Total	**59.70**	**58.50**	**54.20**	**55.30**	**55.80**	**55.10**

(*a*) Excludes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey *see* pages 329–31. (*b*) Last pay-period in October 1965. (*c*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusement, hotels, cafés, personal service, etc.

FULL-TIME ADULT MALE MANAGERIAL, EXECUTIVE, ETC. STAFF(*a*) AVERAGE WEEKLY EARNINGS, INDUSTRY GROUPS STATES, OCTOBER 1965(*b*)

($)

Industry group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia(*c*)		
							Private	Govern-ment	Total
Manufacturing groups	95.40	95.30	82.50	93.00	81.70	89.50	93.30	105.10	93.60
Non-manufacturing groups	95.50	95.10	89.50	83.80	84.00	83.80	89.50	107.10	92.50
All industry groups(*d*)	95.50	95.20	86.70	88.00	83.30	86.30	91.50	106.80	93.00

FULL-TIME ADULT MALE MANAGERIAL, EXECUTIVE, ETC. STAFF(*a*) DISSECTION OF AVERAGE WEEKLY EARNINGS AUSTRALIA(*c*), OCTOBER 1965(*b*)

	Private employees		Government employees		Total	
	Average earnings per employee	Percentage of total	Average earnings per employee	Percentage of total	Average earnings per employee	Percentage of total
	$	%	$	%	$	%
Overtime	0.90	1.0	3.00	2.8	1.10	1.2
Ordinary time earnings—						
At 'award, etc. rates'	87.80	96.0	103.60	97.0	89.40	96.2
In excess of 'award, etc. rates—						
(i) Payment by measured result	1.10	1.2	0.20	0.2	1.00	1.0
(ii) Other	1.70	1.8			1.50	1.6
Total(*d*)	91.50	100.0	106.80	100.0	93.00	100.0

FULL-TIME ADULT MALE MANAGERIAL, EXECUTIVE, ETC. STAFF(*a*) NUMBERS AND PERCENTAGES, TOTAL WEEKLY EARNINGS GROUPS AUSTRALIA(*c*), OCTOBER 1965(*b*)

Total weekly earnings groups	Number ('000)			Percentage		
	Private	Govern-ment	Total	Private	Govern-ment	Total
Less than $52	4.9	0.2	5.0	3.3	1.0	3.1
$52 and less than $56	6.0	0.2	6.2	4.1	1.3	3.8
$56 " " " $60	8.6	0.4	9.0	5.8	2.2	5.5
$60 " " " $70	26.7	1.5	28.2	18.1	9.2	17.2
$70 " " " $80	25.4	1.9	27.3	17.2	11.5	16.6
$80 " over	75.8	12.4	88.3	51.5	74.8	53.8
Total(*d*)	147.4	16.6	164.1	100.0	100.0	100.0

(*a*) Includes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the survey, etc., *see* pages 329–31. (*b*) Last pay-period in October 1965. (*c*) Excludes Northern Territory and Australian Capital Territory. (*d*) Excludes primary production; finance and property; public authority activities (n.e.i.); community and business services; and amusement, hotels, cafés, personal service, etc.

Basic wages in Australia

Special Note. The material in this section refers to the position obtaining prior to the decision of the Commonwealth Conciliation and Arbitration Commission on 5 June 1967 (*see* Appendix for details).

The concept of a 'basic' or 'living' wage is common to rates of wage determined by industrial authorities in Australia. Initially the concept was interpreted as the 'minimum' or 'basic' wage necessary to maintain an average employee and his family in a reasonable state of comfort. However, it is now generally accepted 'that the wage should be fixed at the highest amount which the economy can sustain and that the " dominant factor " is the capacity of the community to carry the resultant wage levels'.

Under the *Commonwealth Conciliation and Arbitration Act* 1904–1966 (*see* pages 312–4) the Commonwealth Conciliation and Arbitration Commission (previously the Commonwealth Court of Conciliation and Arbitration) may, for the purpose of preventing or settling an industrial dispute extending beyond the limits of any State, make an order or award 'altering the basic wage (that is to say, that wage or that part of the wage, which is just and reasonable for an adult male [female], without regard to any circumstance pertaining to the work upon which, or the industry in which he [she] is employed) or the principles upon which it is computed'. In practice, the Commonwealth Conciliation and Arbitration Commission holds general basic wage inquiries from time to time, and its findings apply to industrial awards within its jurisdiction.

In New South Wales and South Australia the State industrial authorities adopt the relevant Commonwealth basic wage. In Victoria and Tasmania, where Wages Boards systems operate, no provision is included in the Industrial Acts for the declaration of a basic wage, although Wages Boards generally adopt Commonwealth basic wages. In Queensland (and Western Australia till December 1966) the determination of a basic wage is a function of the respective State Industrial or Arbitration Courts. Details of basic wage determinations in each State are set out in pages 346–50.

In addition to the basic wage, 'secondary' wage payments, including margins for skill and various kinds of loadings peculiar to the occupation or industry, are determined by these authorities. The basic wage and the 'secondary' wage, where prescribed, make up the 'minimum' wage for a particular occupation. The term 'minimum wage' as distinct from the basic wage is used currently to express the lowest rate payable for a particular occupation or industry. (*See also Adult males—components of total wage rate*, pages 318–9).

The Commonwealth Basic Wage—early judgments

The principle of a living or basic wage was propounded as far back as 1890, but it was not until 1907 that a wage, as such, was declared by a Court in Australia. The declaration was made by an order in terms of section 2 (*d*) of the *Excise Tariff* 1906 in the matter of an application by H. V. McKay that the remuneration of labour employed by him at the Sunshine Harvester Works, Victoria, was 'fair and reasonable'. Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, defined the standard of a 'fair and reasonable' minimum wage for unskilled labourers as that standard appropriate to 'the normal needs of the average employee, regarded as a human being living in a civilized community'. The rate declared was 7s. (70c) a day or £2 2s. ($4.20) a week for Melbourne, the amount considered reasonable for 'a family of about five'.

The 'Harvester' standard was adopted by the Commonwealth Court of Conciliation and Arbitration for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognisance of retail price index numbers, covering food and groceries and rent of all houses ('A' Series) for the thirty more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. At intervals thereafter as awards came before it for review the Court usually revised the basic wage rate of the award in proportion to variations in the retail price index.

During the period of its operation the adequacy or otherwise of the 'Harvester' standard was the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. During the period of rapidly rising prices towards the end of the 1914–18 War strong criticism developed that this system did not adequately maintain the 'Harvester' equivalent. A Royal Commission was appointed in 1919 to inquire as to what it would actually cost a man, wife and three children under fourteen years of age to live in a reasonable standard of comfort, and as to how the basic wage might be automatically adjusted to maintain purchasing power. The Commission's Reports were presented in 1920 and 1921. An application by the unions to have the amounts arrived at by the inquiry declared as the basic wage was not accepted by the Court, because they were considerably in advance of existing rates, and grave doubts were expressed by members of the Court as to the ability of industry to pay such rates. Further details of the recommendations of the Commission were given in *Labour Report* No. 41, page 102.

The system of making automatic quarterly adjustments to the basic wage in direct ratio to variations in the retail price index ('A' Series) was first introduced in 1921. The practice then adopted was to calculate the adjustments to the basic wage quarterly on the index number for the preceding quarter. The new method would have resulted in a basic wage lower than that to which employees would have been entitled had the previous practice been continued, and in 1922 the Court added to the basic wage a general loading of 3s. (30c) (known as the 'Powers 3s.'). This loading continued until 1934. The practice of making automatic quarterly adjustments continued until September 1953 (*see* below).

For a description of the several series of retail price indexes referred to in these paragraphs, *see* pages 297–9 of this chapter.

Commonwealth Basic Wage Inquiries, 1930 to 1950

No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression in 1930, when applications were made to the Court for a reduction of wages. From 1 February 1931 the Court reduced all wages under its jurisdiction by 10 per cent. Subsequent applications in 1932 and 1933 for cancellation of this reduction were refused. In May 1933 the Court transferred the basis of the quarterly adjustment of the basic wage from the 'A' Series to the 'D' Series Retail Price Index. Further particulars may be found in the *Labour Report*, Nos. 22 and 23.

The 'Harvester' standard, adjusted by variations in retail price index numbers, continued to be the theoretical basis of the wage of the Commonwealth Court until the judgment of 17 April 1934, when automatic adjustment was transferred to the 'C' Series Retail Price Index. The new rate for the six capital cities, £3 5s. ($6.50), was in effect the same as that previously paid under the 'A' Series, without the 'Powers 3s.' (30c) and without the 10 per cent reduction, which then ceased to operate. (*See Labour Report* No. 25, 1934.)

The following were the main features of the judgment of the 1937 Inquiry. (*a*) Amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as 'loadings' additional to the rates payable under the 1934 judgment (referred to as the 'needs' portion of the basic wage). These loadings, commonly referred to as 'Prosperity' loadings, ranged, for capital cities, from 4s. (40c) to 6s. (60c), that for the six capitals being 5s. (50c). (*b*) The minimum adjustment of the basic wage was fixed at 1s. (10c) a week instead of 2s. (20c). (*c*) The basis of the adjustment of the 'needs' portion of the wage in accordance with the variations shown by retail price index numbers was transferred from the 'C' Series to a special 'Court' Series based upon the 'C' Series. (*d*) Female and junior rates were left for adjustment by individual judges when dealing with specific awards. (*See Labour Report* No. 28, pages 77–87.)

In 1940, trade unions applied for increases in the basic wage. This application by unions was not finalised until 1950, and the various judgments of the Commonwealth Court of Conciliation and Arbitration are summarised below. In February 1941 the Court refused to increase the basic wage owing mainly to the uncertainty of the economic outlook under existing war conditions. The application was stood over for further consideration. The Chief Judge suggested that the basic wage be graded according to family responsibilities by means of a system of child endowment. (Subsequently the Commonwealth *Child Endowment Act* 1941 came into operation on 1 July 1941. *See* Chapter 14, Welfare Services for details.) In 1946 the unions applied for an 'interim' basic wage declaration and in December 1946 the basic wage was increased by 7s. (70c) a week. The Basic Wage Inquiry, 1949–50 completed the case begun in 1940 and continued in 1946. In October 1950 the Court, by a majority decision, increased the adult male basic wage by £1 ($2) per week; determined that the adult female basic wage be 75 per cent of the adult male rate; and standardised the 'Prosperity' loadings and declared them to be an adjustable part of the basic wage. These decisions operated from the beginning of the first pay-period in December 1950, and the whole of the new basic wage was subject to automatic adjustment as from the beginning of the first pay-period in February 1951. For further particulars of these judgments *see Labour Report* No. 38, page 79 and *Labour Report* No. 39, page 81.

Commonwealth Basic Wage Inquiries, 1952-53 to 1960

The Commonwealth Court of Conciliation and Arbitration in September 1953 announced its decision in the Basic Wage Inquiry, 1952–53. The decision of the Court was (*a*) the employers' applications for reduction in the basic wages and for an increase in the standard hours of work were refused; (*b*) the employers' applications for the deletion of provisions for the adjustment of basic wages in accordance with variations in retail price index numbers were granted; and (*c*) the unions' application for increases in basic wages was refused.

In May 1956 the Court delivered judgment in the Basic Wage Inquiry, 1956. The Court rejected the unions' application for the re-introduction of automatic quarterly adjustments and the abolition of the 3s. (30c) country differential. The Court increased the adult male basic wage by 10s. ($1) a week and the adult female basic wage by 7s. 6d. (75c) a week payable from the beginning of the first pay-period in June 1956.

The Commonwealth Conciliation and Arbitration Commission on 29 April 1957 delivered judgment in the Basic Wage Inquiry, 1956–57. The basic wages for adult males were increased by 10s. ($1) a week and the basic wages for adult females by 7s. 6d. (75c), to come into effect from the first pay-period to commence on or after 15 May 1957. The unions' claim for restoration of automatic quarterly adjustments was refused.

As a result of the Basic Wage Inquiry, 1958 the basic wage for adult males was increased by 5s. (50c) a week, to operate from the beginning of the first pay-period commencing on or after 21 May 1958. The restoration of automatic quarterly adjustments of the basic wage was refused. The claim of the South Australian Government for special treatment for the basic wage for Adelaide was refused.

In its judgment in the Basic Wage Inquiry, 1959 the Commission, by a majority decision, decided that the basic wage for adult males should be increased by 15s. ($1.50) a week payable as from the beginning of the first pay-period commencing on or after 11 June 1959, and that the system of automatic quarterly adjustments should not be restored.

The Conciliation and Arbitration Commission, in its judgment in the Basic Wage Inquiry, 1960, decided that there would be no increase in the basic wage and no restoration of quarterly adjustments to the basic wage.

In the Differential Basic Wage Inquiries, 1960 the Commission decided that the 3s. (30c) country basic wage differentials should be eliminated from awards of the Commission, the new basic wages to be payable from the beginning of the first pay-period commencing on or after 1 January 1961. The claim by employers' associations in South Australia for special treatment for the Adelaide basic wage was refused.

For details of these inquiries *see* earlier issues of the Year Book and the *Labour Report*.

Commonwealth Basic Wage Inquiries, 1961, 1962 and 1963

In its judgment in the Basic Wage and Standard Hours Inquiry, 1961 the Commonwealth Conciliation and Arbitration Commission made the following decisions: (1) the employers' claim for an increase in the standard hours of work from forty to forty-two a week with a concomitant increase in the weekly wage equivalent to two hours' pay at ordinary rates was refused; (2) the unions' claim for restoration of automatic quarterly adjustments was refused; (3) the basic wages for adult male employees were increased by 12s. ($1.20) a week to come into effect from the beginning of the first pay-period commencing on or after 7 July 1961; and (4) that in February 1962 the only issue to be considered in regard to the basic wage should be why the money wages fixed by this decision should not be adjusted in accordance with any change in the Consumer Price Index. To give effect to this the applications were adjourned till February 1962.

The adjourned hearing was held on 20 February 1962. The Commission, after hearing submissions, decided that there would be no alteration in the basic wage until further order; and further adjourned the application before it until February 1963.

The application again came before the Commission on 5 February 1963. In its judgment the Commission decided that there would be no alteration in the basic wage rates, and that the application was further adjourned until February 1964.

Commonwealth Basic Wage Inquiry, 1964 and Employers' Total Wage Case, 1964

On 25 February 1964 the Commonwealth Conciliation and Arbitration Commission began hearing an application by respondent unions for a variation in the Metal Trades Award and the Pastoral Industry Award, and an application by the employers for a variation in the Metal Trades Award. The unions sought an increase of 52s. ($5.20) a week in the basic wage portion of the Metal Trades Award and the Pastoral Industry Award, the abolition of the disparity in respect of station hands under the Pastoral Industry Award, and the re-introduction of automatic quarterly adjustments based on the Consumer Price Index. The employers sought an alteration to the present wage structure, involving the abolition of the 'basic wage' and 'margins' components of the award and the substitution of a total wage, with increases ranging from 5s. (50c) to 8s. (80c) a week.

It was decided to hear the claim by the unions first, but to reserve the decision until the employers' Total Wage Case was heard immediately afterwards. Since the arguments used in the first case were likely to be similar to those used in the employers' hearing it was deemed expedient for Commissioner Winter, who was a member of the bench for the Total Wage Case, to attend the first hearing as an observer.

The Basic Wage Inquiry, 1964

For the hearing of this case the Conciliation and Arbitration Commission was constituted in Presidential Session by Kirby *C.J.* and Gallagher, Moore, and Nimmo *JJ*. Commissioner Winter was present as an observer only.

The application by the unions (*see* above) was opposed by private employers generally. The Commonwealth Government intervened in the public interest, but neither supported nor opposed the claim. Leave to intervene was granted to the Australian Council of Salaried and Professional Associations and thirty affiliated organisations of that Council, to nineteen organisations affiliated with the High Council of Commonwealth Public Service Organisations, and to the State of Tasmania; these parties supported the unions' claims.

At the conclusion of the Basic Wage Inquiry and the Total Wage Case the bench on 9 June 1964 handed down the following decisions.

> '1. Unanimous decision that the unions' claim for the restoration of automatic quarterly adjustments be refused.
>
> '2. Unanimous decision that the application of The Australian Workers Union for the deletion from the Pastoral Industry Award of the basic wage for station hands be granted. This means abolition of the disparity of 1s. [10c] per week in respect of station hands.
>
> '3. Unanimous decision that the basic wages of adult male employees covered by Federal Awards be increased. The Commission is equally divided in opinion on the amount of increase, the President and Mr. Justice Moore being of the opinion that it should be 20s. [$2] and Mr. Justice Gallagher and Mr. Justice Nimmo that it should be 10s. [$1]. The Act (Section 68) provides that if the Commission is equally divided in opinion the question shall be decided according to the opinion of the President. The decision of the Commission is therefore that the basic wages of adult male employees covered by Federal Awards shall be increased by a uniform weekly amount of 20s. [$2].
>
> '4. The new rates will come into operation from the beginning of the first pay period to commence on or after 19 June 1964, subject to special cases.
>
> '5. The basic wages which shall be increased by 20s. [$2] per week shall be those prescribed for adult males in the Pastoral Industry Award, as varied by Decision No. 2 above, and those basic wages as at present prescribed for adult males in the Metal Trades Award and all the Awards respectively the subject of the applications and disputes which have been ordered by the Commission to be joined for hearing and decision with the applications concerning the Pastoral Industry Award and the Metal Trades Award. The awards concerned are set out in the schedule to the Judgment of the President and Mr. Justice Moore.'

Three separate judgments, one by Kirby *C.J.* and Moore *J.* and one each by Gallagher *J.* and Nimmo *J.*, were presented and a summary of these judgments was given in the previous issue of the Year Book.

Employers' Total Wage Case, 1964

The case was heard in Presidential Session by Kirby *C.J.*, Gallagher, Moore, and Nimmo *JJ.* and Commissioner Winter.

A claim was made by the Metal Trades Employers Association, the Victorian Chamber of Manufactures and the Metal Industries Association of South Australia for the deletion from the Metal Trades Award of the basic wage provisions and for the insertion in the award of a wage expressed as a total wage. The employers offered an immediate increase in the total wage but made it clear that they did not desire the Commission to grant their application for a total wage unless the Commission also agreed to implement their submission that movements in wages should be kept within movements in productivity. They also asked that, since the application was a vehicle by which the Commission would establish a new approach to the principle of wage fixation, the decision should not be confined to the Metal Trades industry but applied generally to the Commission's awards. The unions opposed the application, stressing the importance of the basic wage to the lower paid worker, its historical significance and the attitude of Parliament.

The Commonwealth Government, when intervening, emphasised the need for flexibility, the desirability of adherence to the capacity to pay principle, the danger of fixing wage rates solely in relation to price movements or productivity, the undesirability of assessing rates on purely economic grounds, the advantage of work value fixations, and that it was wrong to proceed on the basis that whenever a change took place in one margin all margins should change.

On 9 June 1964 the Commission announced the following decision:

> 'The members of the bench are unanimous in the opinion that the application of the employers for the deletion from the Commission's awards generally of the basic wage provision and for the insertion in those awards of a wage expressed as a total wage should be rejected.'

Three separate judgments, one by Kirby *C.J.*, Moore *J.* and Commissioner Winter, and one each by Gallagher *J.* and Nimmo *J.*, were handed down, and a summary of these judgments was given in the previous issue of the Year Book.

National Wage Cases of 1965

Hearing in these cases commenced on 2 March 1965 before Kirby *C.J.*, Gallagher, Moore, Sweeney, and Nimmo *JJ.*, of the Commonwealth Conciliation and Arbitration Commission. Claims by the employers and the trade unions were heard concurrently.

The employers' claim (Part A) was for the abolition of the concepts of the basic wage and margins, and the introduction into the Metal Trades Award of an obligation to pay a total wage made up of the sum of the amounts expressed in terms of the basic wage and a margin, plus an amount equivalent to one per cent of such sum. The employers also asked (Part B) that, in respect of the ensuing twelve months, the level of the basic wage and the level of margins, in so far as the latter is determined upon general economic grounds, should be decided simultaneously. It was open to the Commission under Part B of these claims to decide whether there should be an increase in (*a*) the basic wage element alone; (*b*) the marginal element alone; or (*c*) both the basic wage and marginal elements, to whatever extent in respect of each element the Commission deemed proper.

The trade unions sought new basic wage rates incorporating increases proportionate to the rises in the Consumer Price Index. For the Six Capital Cities basic wage the increase claimed was 12s. ($1.20) a week for adult males.

The Commission announced its decision on 29 June 1965, when three separate judgments were handed down—a joint judgment by Gallagher, Sweeney and Nimmo *JJ.*, and separate judgments by Kirby *C.J.* and by Moore *J.* In accordance with the opinion of the majority (namely, that of Gallagher, Sweeney and Nimmo *JJ.*), the order of the Commission was to the effect:

(*a*) Part A of the employers' application was refused;
(*b*) with regard to Part B of the employers' application—
  (i) there would be no alteration in the basic wage,
  (ii) with effect from the first pay-period commencing on or after 1 July 1965 each margin in Clause 4 of the Metal Trades Award was increased by an amount equal to 1½ per cent of the sum of the Six Capital Cities basic wage and that margin;
(*c*) the application of the unions for an increase in the basic wage was refused.

The majority judgment anticipated that, subject to the question of capacity of a particular industry and the question of those margins which had already been increased on general economic grounds (since 1963), the increases awarded would be speedily reflected throughout the awards of the Commission.

Basic Wage, Margins and Total Wage Cases of 1966

On 2 March 1966 two benches of the Commonwealth Conciliation and Arbitration Commission in joint session commenced hearing claims of trade unions and employers. The trade unions' claims were: (*a*) for an increase in the respective basic wage rates of $4.30 a week in both the Metal Trades and Pastoral Industry Awards; (*b*) the restoration of the system of automatic quarterly adjustments based upon movements in the Consumer Price Index numbers; and (*c*) an increase of $5.90 a week in the marginal rate for tradesmen with proportionate increases to all other classifications of employees. The employers' alternative claims were: (Part A) that the existing basic wage rates and marginal rates be aggregated into total wage rates, to which should be added 1½ per cent of such total rates; or (Part B) that the existing basic wage rates should be increased by 30 cents a week, marginal rates by 1 per cent, and the resultant figure by ½ per cent.

The President of the Commission nominated two benches of the Commission to hear these claims A Presidential Bench, consisting of Wright *J.* (presiding), Gallagher and Moore *JJ.*, was nominated to deal with the trade unions' basic wage claims and those portions of the employers' total wage claims seeking alteration of the basic wage. A Reference Bench, consisting of Wright *J.* (presiding), Gallagher and Moore *JJ.* and Commissioner Winter, was nominated to deal with the trade unions' margin claims and those portions of the employers' claims not seeking alteration of the basic wage. The High Court of Australia, upon application, upheld the validity of the nomination of Commissioner Winter as a member of the Reference Bench. The two benches sat in joint session until the conclusion of the hearing on 16 June 1966, when the Commission reserved its decisions.

On 8 July 1966 the Presiding Judge of the Commission (Wright *J.*) announced the following decisions.

For the Presidential Bench

(1) The Commission was of opinion that the Commission in Presidential Session was not empowered to deal with Part A of the employers' log of claims (*see* above) and its consideration had therefore been undertaken by the Reference Bench which participated in the joint session of the Commission.

(2) The Commission had decided that each of the basic wage rates prescribed for adult males in the Metal Trades Award should be increased by the sum of $2 a week.

(3) The Commission's order would operate as from the beginning of the first pay period to commence on or after 11 July 1966 and would remain in force until 31 December 1966.

(4) By operation of the Award, and without further order, proportional increases would accrue to adult female employees, junior employees and apprentices

(5) The union claim for restoration of automatic quarterly adjustments was refused.

(6) The basic wage in the Pastoral Industry Award should be increased by the same amount and as from the same date as in the case of the Metal Trades Award, and the order would have the same period of operation.

(7) The decisions were unanimous and disposed of the unions' basic wage claims.

For the Reference Bench

(1) The Bench was concerned about the state of the Metal Trades Award and had reached the conclusion that it would be unwise to award any general increases until an investigation had been made on a work value basis of the relativities of the 330 classifications listed in the award and the necessity for as many as 53 separate wage rates with refinements as low as a cent a day between classifications.

(2) The Bench therefore decided to avail itself of the procedure available under Section 34 (6) of the Act to obtain from Commissioner Winter, after such investigation as he considered necessary, a report with respect to the following specified matters:

(*a*) What, if any, rearrangements or re-designations of classifications or additional classifications under Part I of the Metal Trades Award are necessary or desirable to bring them into accord with present-day requirements;

(*b*) What, if any, alterations of marginal rates prescribed under Part I of the Metal Trades Award or additional marginal rates are justified upon the grounds of work value, the economic considerations which have been presented to this bench, or for any other reason.

(3) The Bench was aware that the report by Commissioner Winter could take some time to formulate. It therefore indicated that, if at some appropriate stage in the proceedings before him and with due regard to industrial justice and practicability Commissioner Winter thought fit to furnish an interim report pending completion of his whole investigation, that would be in accordance with the Commission's intentions in seeking a report.

(4) Detailed consideration had been given to the 31 classifications having the lower range of marginal rates being 90c a week at the bottom and $3.60 at the top. The Commission decided pending Commissioner Winter's report to grant some immediate relief to low wage earners. Therefore, as an interim order in the unions' margins application, the Bench intended to insert a new provision in the award by which it would be prescribed that no adult male employee should be paid as a weekly wage for working the standard hours of work an amount less than his appropriate basic wage rate plus $3.75 a week. The Bench emphasised that this was an interim provision only, and was not intended as an indication that when the classification structure falls for final consideration that there would be no rate lower than those specified as minima.

It was intended that the minimum rates specified should apply only to adult male employees and should be applied for all purposes of the award—for example, in the calculation of overtime and other penalty rates, piece-work, casual employment, sick leave and annual leave. But they would not affect extra rates for leading hands, for tradesmen in large power houses, or for employees engaged on ship repairs. The minimum rates prescribed would not affect the calculation of junior rates of pay.

The provision for a new minimum wage for adult male employees was designed to meet the circumstances of employees in the lowest classifications who were in receipt of award rates and no more. It was not intended to affect the wage of any employee who was already receiving the prescribed minimum through over-award payments.

The increase was awarded on the unions' application so that its implementation in awards other than the Metal Trades Award, where appropriate, might be achieved expeditiously upon union application.

(5) The Commission's Order would operate as from the beginning of the first pay-period to commence on or after 11 July 1966, and would remain in force until 31 December 1966.

(6) These decisions were unanimous.

(7) The Bench indicated in their reasons the extent to which they favoured the employers' proposal for conversion of the wage structure to the basis of a single wage, but had decided to defer the question of implementation pending further consideration of the present structure of marginal rates and further argument.

Margins and Total Wage Cases of 1966 (Interim Margins)

For details of this decision concerning margins *see* page 352.

National Wage Cases of 1967.

See Appendix for details.

Basic wage rates for females

Labour Report No. 51, page 130, contains an account of the fixation of minimum rates and basic wages for adult females by the Commonwealth Court of Conciliation and Arbitration. At the end of the 1949–50 Basic Wage Inquiry the Commonwealth Court of Conciliation and Arbitration, by a majority decision, fixed the basic weekly wage for adult females at 75 per cent of the corresponding male rate from the beginning of the first pay-period commencing in December 1950. This percentage has continued to be prescribed in subsequent inquiries. Commonwealth basic wage rates for capital cities are shown in the following table.

Commonwealth basic wage rates operative

The following table shows the movements in the Commonwealth basic wage rates for each State capital city and for the six capitals to 1966.

COMMONWEALTH BASIC WAGE: WEEKLY RATES(*a*)(*e*), STATE CAPITAL CITIES

($)

Date operative(*b*)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six capitals
ADULT MALES							
September 1939	8.10	8.10	7.60	7.80	7.70	7.70	7.90
November 1943	9.90	9.80	9.30	9.40	9.40	9.50	9.70
„ 1944	9.90	9.80	9.30	9.30	9.40	9.40	9.60
„ 1945	9.90	9.80	9.30	9.30	9.40	9.40	9.60
„ 1946	10.10	9.90	9.40	9.50	9.50	9.70	9.80
December 1946	10.80	10.60	10.10	10.20	10.20	10.30	10.50
November 1947	11.20	10.90	10.50	10.60	10.60	10.70	10.90
„ 1948	12.20	12.00	11.50	11.60	11.60	11.80	11.90
„ 1949	13.20	13.00	12.50	12.60	12.90	12.80	12.90
„ 1950	14.60	14.30	13.50	13.70	13.90	13.90	14.20
December 1950(*c*)	16.50	16.20	15.40	15.80	16.00	16.00	16.20
November 1951	20.70	19.90	18.50	19.50	19.70	19.90	20.00
„ 1952	23.70	22.80	21.60	22.90	22.80	23.00	23.10
August 1953(*d*)	24.30	23.50	21.80	23.10	23.60	24.20	23.60
June 1956	25.30	24.50	22.80	24.10	24.60	25.20	24.60
15 May 1957	26.30	25.50	23.80	25.10	25.60	26.20	25.60
21 May 1958	26.80	26.00	24.30	25.60	26.10	26.70	26.10
11 June 1959	28.30	27.50	25.80	27.10	27.60	28.20	27.60
7 July 1961	29.50	28.70	27.00	28.30	28.80	29.40	28.80
19 June 1964	31.50	30.70	29.00	30.30	30.80	31.40	30.80
11 July 1966	33.50	32.70	31.00	32.30	32.80	33.40	32.80
ADULT FEMALES (*c*)							
August 1953(*d*)	18.20	17.60	16.35	17.30	17.70	18.15	17.70
June 1956	18.95	18.35	17.10	18.05	18.45	18.90	18.45
15 May 1957	19.70	19.10	17.85	18.80	19.20	19.65	19.20
21 May 1958	20.10	19.50	18.20	19.20	19.55	20.00	19.55
11 June 1959	21.20	20.60	19.35	20.30	20.70	21.15	20.70
7 July 1961	22.10	21.50	20.25	21.20	21.60	22.05	21.60
19 June 1964	23.60	23.00	21.75	22.70	23.10	23.55	23.10
11 July 1966	25.10	24.50	23.25	24.20	24.60	25.05	24.60

(*a*) Rates prescribed by the Commonwealth Conciliation and Arbitration Commission (before 30 June 1956 the Commonwealth Court of Conciliation and Arbitration). Rates include prosperity loadings, where applicable. (*b*) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown. (*c*) From December 1950 the basic wage rates for adult females have been 75 per cent of the rates for adult males. (*d*) Automatic adjustment discontinued (*see* page 340). (*e*) *See* Special Note on page 339.

A table showing Commonwealth basic wage rates from 1923 to 1964 was published in the Appendix to *Labour Report* No. 51. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

Basic wage rates, Australian Territories

In the Northern Territory there are two basic wages operating, one in respect of areas north of the 20th parallel of South Latitude, generally referred to as the 'Darwin' rate, and the other in respect of areas south of that parallel and extending down to the 26th parallel (the 'Port Augusta' rate). The basic wage rates payable as from the beginning of the first pay-period commencing on or after 11 July 1966 were: 'Darwin' rate, adult males $34.70, adult females $26.00; 'Port Augusta' rate, adult males $33.40, adult females $25.05. In addition to these rates, special loadings of $1 to the 'Darwin' and 70c to the 'Port Augusta' adult male basic wages have been provided in a number of awards.

In the Australian Capital Territory the rates payable as from the beginning of the first pay-period commencing on or after 11 July 1966 were $33.00 for adult males and $24.75 for adult females.

Further details of basic wage rates in the Northern Territory and the Australian Capital Territory may be found in *Labour Report* No. 51 (pages 131–5 and in Section IX of the Appendix).

State basic wages—New South Wales

The first determination under the New South Wales Industrial Arbitration Act of a standard 'living' wage for adult male employees was made on 16 February 1914, when the Court of Industrial Arbitration fixed the living wage at £2 8s. ($4.80) a week for adult males in the metropolitan area. A Board of Trade, established in 1918, with power to determine the 'living' wage for adult male and female employees in the State, made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act, 1926 transferred its powers, as from 15 April 1926, to the Industrial Commission of New South Wales.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children. However, with the adoption in 1937 of the Commonwealth basic wage, the identification of a specified family unit with the basic wage disappeared.

A State scheme of supplementing wages by child endowment became operative in New South Wales from July 1927, and continued until superseded by the Commonwealth Government scheme in July 1941. A brief account of the main features of the New South Wales system was given in Year Book No. 37, pages 485–6.

From 1937 to October 1955 the State basic wage for Sydney was the same as the Commonwealth basic wage for Sydney. Beginning from the first pay-period in November 1955, by amendment to the Industrial Arbitration Act, the basic wage was automatically adjusted each quarter in accordance with movements in retail price index numbers. (Automatic adjustments to Commonwealth basic wages were discontinued in September 1953—*see* page 340.) In October 1964 the Act was amended to delete provision for automatic adjustment to the State basic wage, and to provide that the Commonwealth basic wage for Sydney should in future apply in State awards and industrial agreements, to operate from the beginning of the first pay-period which commenced on or after 19 June 1964.

The Industrial Arbitration (Female Rates) Amendment Act, 1958 defined the basic wage for adult females as being 75 per cent of the adult male rate. It also provided that by January 1963 for male and female employees performing work of the same or like nature and of equal value the same basic wage and secondary wage might be prescribed by the Industrial Commission or a Conciliation Committee.

A table showing State basic wage rates for Sydney for adult males and adult females from 1914 to 1964 was published in the Appendix to *Labour Report* No. 51, 1964. Current rates are published in the monthly bulletin *Wage Rates and Earnings*. The rates payable from 11 July 1966 were $33.50 for adult males and $25.10 for adult females. For further particulars of the history of State basic wages *see* earlier issues of the Year Book or *Labour Report*.

Victoria

There is no provision in Victorian industrial legislation for the declaration of a State basic wage. Wages Boards constituted for each industry group or calling from representatives of employers and employees, with an independent chairman, determine the minimum rate of wage to be paid in that industry or calling. In general these Boards have adopted a basic wage in determining the rate of wage to be paid.

Wages Boards in the past have generally adopted Commonwealth basic wage rates. In 1934 Wages Boards were given discretionary power to include in their determinations appropriate provisions of relevant Commonwealth Awards; in 1937 Wages Boards were compelled to adopt such provisions of Commonwealth Awards. In 1937 Wages Boards were also given power to adjust wage rates, 'with the variation from time to time of the cost of living as indicated by such retail price index numbers published by the Commonwealth Statistician as the Wages Board considers appropriate'. The Wages Boards thus adopted the basic wages declared by the Commonwealth Court of Conciliation and Arbitration and followed that Court's system of adjusting the basic wage in accordance with variations in retail price index numbers.

After the Commonwealth Court of Conciliation and Arbitration discontinued the system of automatic adjustment of the Commonwealth basic wage in September 1953, a number of Wages Boards met in November 1953, and deleted references to these adjustments. However, an amendment to the Factories and Shops Act in November 1953 required Wages Boards to provide for the automatic adjustment of wage rates in accordance with variations in retail price index numbers.

In October 1956 an amendment to the Labour and Industry Act (which had superseded the Factories and Shops Act in 1954) deleted the automatic adjustment provision and directed Wages Boards in determining wage rates to take into consideration relevant awards of, or agreements certified by, the Commonwealth Conciliation and Arbitration Commission. The last automatic quarterly adjustment of the basic wage was payable as from the beginning of the first pay-period in August 1956. Following the judgment of the Commonwealth Conciliation and Arbitration Commission in the 1959 Basic Wage Inquiry, Wages Boards met in June and July 1959, and varied their determinations by incorporating the new Commonwealth rates. Since then the increases in basic wage rates granted by the Commonwealth Conciliation and Arbitration Commission have been adopted by Wages Boards. The rates for Melbourne, payable from 11 July 1966, were $32.70 a week for adult males and $24.50 for adult females.

A table showing, for the period November 1953 to June 1964, the basic wage rates for adult males and females adopted by most Wages Boards was published in the Appendix to *Labour Report* No. 51, 1964. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

Queensland

The first formal declaration of a basic wage by an industrial tribunal in Queensland, £4 5s. ($8.50) for adult males, operated from 1 March 1921. Prior to this declaration the rate of £3 17s. ($7.70) a week for adult males had been generally recognised in awards as the 'basic' or 'living' wage.

'*The Industrial Conciliation and Arbitration Act of* 1929' established an Industrial Court and provided that the Court could make declarations as to the basic wage and standard hours. This Act as subsequently amended was repealed by '*The Industrial Conciliation and Arbitration Act of* 1961', which established, in addition to the Industrial Court, an Industrial Conciliation and Arbitration Commission. The Act provides that any basic wage declared must at least maintain an employee, his wife and family of three children in a fair and average standard of comfort.

The amendment to the Act in 1961 provided that the full bench of the Commission, consisting of not less than three Commissioners, might make declarations as to the basic wage and standard hours of work. The Act also provided that all persons interested must be given an opportunity to be heard before any general declaration as to the basic wage could be made.

Following an inquiry, the Commission, in a decision in May 1961, increased the adult male basic wage by 4s. (40c) a week, which was approximately the amount of the increase indicated by the Consumer Price Index for March quarter 1961. In November 1961 the Commission refused an application by employer organisations for a declaration of a general ruling that 'in future the basic wage for males and/or females shall not be reviewed merely by reason of any change in the Consumer Price Index at intervals of less than twelve months'.

The Commission in December 1962 rejected an application by unions for increases of £1 4s. ($2.40) in the adult male basic wage and 18s. ($1.80) in the adult female basic wage.

In 1963 the Commission, after an inquiry, increased the basic wage by 2s. (20c) a week for adult males and by 1s. 6d. (15c) a week for adult females from 6 May 1963. Following hearing of four applications by unions to alter the basic wage, the Commission in 1964 unanimously increased the basic wage by 14s. ($1.40) to £15 ($30) a week for adult males. The increase took effect on and from 13 July 1964.

In a declaration on 23 September 1964 the Commission after an inquiry refused to increase the basic wage, despite movement in the Consumer Price Index for the June quarter 1964 which would have justified an increase of 2s. (20c), on grounds that such an increase would constitute a very ineffective addition to the wages of employees.

The Commission in December 1964 granted basic wage increases which had been claimed by unions of 6s. (60c) and 4s. 6d. (45c) a week for adult males and adult females respectively. Commenting on employer associations' claims, the Commission stated that, although the Commonwealth basic wage determined the State basic wage in all States except Queensland and Western Australia, the Commission had never fixed the State basic wage only in relation to the basic wage in other States or the Commonwealth basic wage, and could therefore see no reason why a decision should be made at this time to withhold a hearing for review pending the review of the Commonwealth basic wage.

Trade unions applied in January 1965 for a further increase in the basic wage consequent upon the upward movement in the Consumer Price Index since the last declaration. Following the hearing of unions' claims, the Commission increased the adult male wage by 3s. (30c) a week and the adult female wage by 2s. 6d. (25c) a week, effective as from 29 March 1965. In its judgment the Commission stated that it had been decided as a matter of policy that in the future it did not propose to deal with an application to vary the basic wage solely because of a change in the Consumer Price Index unless such a change warranted an alteration of 4s. (40c) or more in the basic wage for adult males.

In July 1965 trade unions applied to the Commission to vary the basic wage on the grounds that recent rises in the Consumer Price Index warranted an increase of more than 4s. (40c) a week in the basic wage. In its judgment of 2 September 1965 a majority of the Commission rejected the unions claim for 6s. (60c) per week increase, but granted an increase of 5s. (50c) a week, effective from 20 September 1965. As a matter of policy the Commission further decided not to review the basic wage again before 1 July 1966.

After hearing applications by trade unions, the Commission decided in April 1966 to review the basic wage. Consequent upon this review the Commission increased the basic wage for adult males by $1.30 and for adult females by $1 with effect on and from 23 May 1966.

After a further inquiry in March 1967 the Commission increased the basic wage for adult males by 50c a week and for adult females by 35c a week operative from 10 April 1967.

The rates payable in the Southern Division (Eastern District) from 10 April 1967 were $33.20 for adult males and $24.90 for adult females. In addition to the basic wage for the Southern Division (Eastern District), which includes Brisbane, adult males in other areas receive district allowances. As from 2 February 1959 the allowances have been: Southern Division (Western District) 10s. 6d. ($1.05), Mackay Division 9s. (90c), Northern Division (Eastern District) 10s. 6d. ($1.05), Northern Division (Western District) £1 12s. 6d. ($3.25). The allowances for adult females are not less than 75 per cent of those for adult males. In the Appendix to *Labour Report* No. 51 a table was published showing adult male and adult female basic wage rates payable in the Southern Division (Eastern District) from 1 March 1921 to 20 September 1965. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

South Australia

The Industrial Code, 1920–1966 provides that from 1 July 1966 the Industrial Commission, constituted by the President and two Commissioners, shall after public inquiry declare the 'living wages' to be paid to adult male and adult female employees. Prior to this date this power was vested in the Board of Industry. The family unit was not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage was to be declared was a man with a wife and three children. However, the concept of a family unit disappeared with the adoption of basic wage rates declared by the Commonwealth Court of Conciliation and Arbitration (*see* below). The first declaration by the Board of Industry became operative from 4 August 1921 when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. ($7.95) a week.

Following the 'interim' increase in the 'needs' basic wage of the Commonwealth Court of Conciliation and Arbitration, announced on 13 December 1946, the South Australian Government made a provision in the Economic Stability Act, 1946 for the declaration by the Governor of a living wage based on the Commonwealth basic wage for Adelaide.

The Industrial Code Amendment Act, 1949 made provision for the quarterly adjustment of the living wage in accordance with the variations in the Commonwealth basic wage for Adelaide. In effect, this made the State living wage and the Commonwealth basic wage for adult males equal from the beginning of the first pay-period commencing in February 1950.

Following the decision of the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry, the South Australian Industrial Code was amended to provide for declarations of the living wage by proclamations to prevent unjustifiable differences between the State and Commonwealth rates of wage. By proclamation dated 30 November 1950 the South Australian living wage in the metropolitan area was made identical with the December 1950 rates fixed by the Commonwealth Court of Conciliation and Arbitration for the metropolitan area of South Australia. The female basic wage, which had been approximately 55 per cent of the male basic wage, was increased to 75 per cent of the corresponding male rate.

When the Commonwealth Court of Conciliation and Arbitration discontinued quarterly adjustments to Commonwealth basic wages in September 1953, the South Australian living wage also ceased to be varied quarterly, and since that time it has remained the same as the Commonwealth basic wage for Adelaide. Following the Commonwealth basic wage inquiries in 1956 and subsequent years, increases were made to the South Australian living wages by proclamation. The rates operative from 11 July 1966 were $32.30 for adult males and $24.20 for adult females.

A table showing adult male and adult female basic wage rates for the whole State (with the exception of Whyalla and nearby area) from 1921 to June 1964 will be found in Section X of the Appendix to *Labour Report* No. 51. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

Western Australia

In December 1966, legislation provided that the Western Australian basic wage rates should be the same as the Commonwealth Six Capitals rates as soon as these exceed the State rates operative from 24 October 1966. Prior to 1963, the *Industrial Arbitration Act*, 1912–1961 provided that the Court of Arbitration could determine and declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determinations should be made within twelve months of the previous inquiry.

The term 'basic wage' was defined in the Act as 'a wage which the Court considers to be just and reasonable for the average worker to whom it applies'. In determining what was just and reasonable, the Court had to take into account not only the 'needs of an average worker', but also the 'economic capacity of industry' and any other matters it deemed relevant. The Act provided that the Court of Arbitration (or the Commission since 1964) could make adjustments to the basic wage each quarter, if the statement supplied by the State Government Statistician showing retail price index numbers and monetary equivalents in terms of the State basic wages indicated that there has been a variation of 1s. (10c) or more a week compared with the previous quarter. These adjustments generally apply from the dates of declaration.

The first declaration of the basic wage by the Court of Arbitration, after the authority to fix one was vested in the Court in 1925, operated from 1 July 1926. The family unit was not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. The principal inquiries into the basic wage have been those of 1938, 1947, 1950, 1951, and 1964. For details of the inquiries 1937 to 1950 see earlier issues of the Year Book.

In December 1951 the basic wage for adult females became 65 per cent of the corresponding male rate. In January 1960 this proportion was increased to 75 per cent. In each case the margins for females were reduced or deleted to offset the increase in the female basic wage.

Amendments to the Industrial Arbitration Act passed in 1963 became effective on 1 February 1964. The Act provided that the fixation and adjustment of the basic wage would now be dealt with by the Commission in Court Session (three Commissioners) instead of the former Court of Arbitration. In April 1964 the Commission, in exercising its discretionary powers, unanimously increased the basic wage for adult males by 2s. 8d. (27c) a week for the metropolitan area and the rest of the South-West land division and 2s. 7d. (26c) a week for the Goldfields area and all other parts of the State.

The Commission on 22 July 1964 began a general inquiry following union submissions for an increase of £2 12s. ($5.20) in the basic wage for adult males. On 22 September the Commission announced its decision that the basic wage for the whole of the State would be £15 8s. ($30.80) for adult males, with appropriate rates for females, juniors and apprentices. This decision abolished the differential rates applying to different areas of the State which had operated since 1931. Subsequently the Commission reduced the industry allowance in the goldmining industry awards from 30s. ($3) to 22s. 6d. ($2.25) a week. Eight separate increases in the State basic wage were made in the period October 1964 to October 1966, following the Commission's examination of movements in the Consumer Price Index.

The rates payable in the whole of the State as from 24 October 1966 were $33.50 for adult males and $25.13 for adult females. A table showing the Western Australian State basic wage for the Perth Metropolitan Area from 1926 to 16 November 1965 will be found in Section X of the Appendix to *Labour Report* No. 51. Current rates are published in the monthly bulletin *Wage Rates and Earnings.*

Tasmania

A State basic wage is not declared in Tasmania. Under the *Wages Board Act* 1920 as amended (to 1966) Wages Boards are constituted for a number of industries from representatives of employers and employees, with an independent chairman (who is common to all Wages Boards), with power to determine the minimum rates of wage payable in each industry. Until February 1956 these Boards generally adopted the basic wages of the Commonwealth Court of Conciliation and Arbitration in determining the rates of wage to be paid.

Wages Boards have power to adjust their wage rates in accordance with variations in the cost of living as indicated by retail price index numbers published by the Commonwealth Statistician. When the Commonwealth Court discontinued the system of automatic adjustments of the basic wage in September 1953, Wages Boards met to consider this matter. By early December 1953 all Wages Boards had met and deleted the automatic adjustment clause from determinations and cancelled the adjustment increases payable from November 1953.

Automatic quarterly adjustments in accordance with movements in retail price index numbers were re-introduced by Wages Boards in February 1956, and continued in May and August 1956.

The majority of Wages Boards suspended automatic quarterly adjustments after the August 1956 adjustment, and basic wage rates remained unchanged until July 1959, when Commonwealth basic wages were adopted. In January 1961 Wages Boards adopted the basic wage for Hobart as the uniform rate applicable throughout the State. Following the decision of the Commonwealth Conciliation and Arbitration Commission in July 1961 to increase the basic wage, Wages Boards met during July and incorporated the new Commonwealth rates in their determinations. During 1962 a number of Wages Boards met and varied their determinations by making provision for the automatic adjustment of the basic wage to conform to any change in the basic wage determined from time to time in awards of the Commonwealth Conciliation and Arbitration Commission.

On 11 July 1966, following the increase of $2 in the Commonwealth basic wage for adult males, the rates became $33.40 and $25.05 for adult males and adult females respectively.

A table was published in the Appendix to *Labour Report* No. 51, 1964 showing Hobart basic wage rates for adult males and adult females generally adopted by Wages Boards in the period February 1956 to June 1964. Current rates are published in the monthly bulletin *Wage Rates and Earnings.*

State basic wage rates

The 'basic' wage rates of State industrial tribunals operative in April 1967 are summarised in the following table. State basic wage rates for adult males and adult females for a long period of years are shown in the Appendix to *Labour Report* No. 51, 1964. Current figures are published in the monthly bulletin *Wage Rates and Earnings.*

STATE BASIC WAGES: WEEKLY RATES OPERATIVE APRIL 1967(*a*)

($)

State and locality	Date of operation	Males	Females
New South Wales	11.7.66	33.50	25.10
Victoria	11.7.66	32.70	24.50
Queensland—			
Southern Division—			
Eastern District, including Brisbane	10.4.67	33.20	24.90
Western District	10.4.67	34.25	25.70
Mackay Division	10.4.67	34.10	25.58
Northern Division—			
Eastern District	10.4.67	34.25	25.70
Western District	10.4.67	36.45	27.35
South Australia	11.7.66	32.30	24.20
Western Australia(*b*)	24.10.66	33.50	25.13
Tasmania	11.7.66	33.40	25.05

(*a*) *See* Special Note on page 339. (*b*) Rates apply to whole of State (*see* page 349).

Wage margins

Note. The Special Note on page 339 applies also to this section.

Wage margins have been defined as 'minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether those features are the skill or experience required for the performance of that work, its particularly laborious nature, or the disabilities attached to its performance'.

Marginal rates of wage are determined by Commonwealth and State industrial tribunals. In the Commonwealth jurisdiction prior to 1954 the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunciated by the Court in the Engineers Case of 1924, the Merchant Service Guild Case in 1942 and the Printing Trades Case of 1947. Major determinations affecting margins were made in 1954, 1959, 1963, 1965, and 1966. The decisions of the Commonwealth Court and later the Commonwealth Conciliation and Arbitration Commission have generally been followed by State industrial tribunals in the determination of margins in State awards.

A summary of the judgments of the Commission in 1954, 1959, 1963, 1965, and 1966 affecting margins is given in the following paragraphs.

Metal Trades Case, 1954

In a judgment delivered on 5 November 1954 the Commonwealth Court of Conciliation and Arbitration made an order re-assessing the marginal structure in the Metal Trades Award by, in general, raising the current amount of the margin to two and a half times the amount of the margin that had been current in 1937. However, in cases in which the result of that calculation produced an amount less than the existing margin, the existing margin was to remain unaltered. In effect, this decision increased the margins of a fitter from 52s. ($5.20) a week to 75s. ($7.50) a week, increased similarly margins of other skilled occupations, and made no increase in margins of what may generally be described as the unskilled or only slightly skilled occupations under the Metal Trades Award. The new rates operated from the beginning of the first pay-period commencing on or after 13 December 1954.

At the end of its judgment the Court stated that, while its decision in this case related immediately to one particular industry, it was expected to afford general guidance to all authorities operating under the Conciliation and Arbitration Act, or under other legislation which provided for tribunals having power to make references, or being subject to appeal, to the Court, where the wage or salary may properly be regarded as containing a margin. The Court added observations for the guidance of these and of other tribunals 'which may regard decisions of this Court as of persuasive authority'. Further details were published in *Labour Report* No. 46, 1958, pages 101–8.

Margins Cases, 1959

On 25 August 1959 the Commonwealth Conciliation and Arbitration Commission began considering a number of applications for changes in margins referred to it from the appropriate Commissioner. Applications had been made by various employee organisations for increased margins in Parts I. and II. of the Metal Trades Award, Part II. of the Aircraft Industry Award, the Bank Officials' Award, and the Gold and Metalliferous Mining Award. An application by employers sought to reduce marginal rates in the Metal Trades Award. The Commission decided to hear all these matters together, permitting the applicant unions in respect of Part II. of the Metal Trades and Aircraft Industry Awards, and the Bank Officials' Award to ask first for an interim increase. A summary of the principal decisions of the Commission is given in the following paragraphs. Further details, including extracts from the judgment, were published in Year Book No. 47, pages 455–9.

Metal Trades Award, Part I. The employee organisations claimed an increase in the margin for the fitter, as set out in the Metal Trades Award, 1952 (i.e. the award as it existed prior to the Metal Trades Case, 1954—*see* above), from 52s. ($5.20) to 134s. ($13.40) a week and an increase of 157 per cent in the margins for other classifications. The employers counter-claimed for a reduction in margins of 15s. ($1.50) a week.

The Commonwealth Government intervened, and not only submitted statistical material and an analysis of the economic situation, but also assisted the Commission with an exposition of various factors proper to be taken into account in the fixation of margins. In particular, the Commonwealth emphasised the desirability of flexibility in the workings of the arbitration system.

In its judgment, delivered on 27 November 1959, the Commission rejected the employers' application to reduce margins, and made an order re-assessing the marginal structure in the Metal Trades Award by increasing the existing margins by 28 per cent, the amount of the increase being taken to the nearest 6d. (5c). The new margins applied from the beginning of the first full pay-period commencing in December 1959. The effect of this decision was to increase the margin of the fitter from 75s. ($7.50) to 96s. ($9.60) a week and that for the process worker from 22s. ($2.20) to 28s. ($2.80).

Other awards. The Commission also granted margin increases to workers covered by the Gold and Metalliferous Mining Award, the Metal Trades Award, Part II., the Aircraft Industry Award, Part II., and the Bank Officials' Award. Details of these increases were published in previous issues of the Year Book. Other awards of the Commission were subsequently amended in accordance with the decision in the Metal Trades Award, Part I.

Margins Case, 1963

Following the conclusion of the 1963 Basic Wage Case, two benches of the Commonwealth Conciliation and Arbitration Commission on 5 February 1963 commenced to hear applications by metal trades unions for increased margins and for three weeks annual leave (*see* page 354). The two benches sat jointly for the convenience of the parties involved and were constituted as follows: margins case—Kirby *C.J.* (President), Moore and Ashburner *JJ* and Commissioner Apsey; three weeks' annual leave case—Kirby *C.J.* (President), Moore *J.* (Deputy President) and Commissioner Apsey.

The unions' claim on margins was that the Commission restore, on an assessed basic wage, the relativities within the Metal Trades Award established in 1947 by what is known as the second Mooney formula. Taking £15 7s. ($30.70) as the assessed basic wage (calculated as the 1947 basic wage adjusted to price changes since 1947) and applying the percentage 48.6, which the fitter's margin was of the 1947 basic wage, the union arrived at a new marginal rate of £7 9s.

($14.90) for a fitter, an increase of £2 13s. ($5.30) on the current margin. This claim of £7 9s. ($14.90) was 2.86 times the 1947 fitter's margin, and hence the unions sought to have all 1947 margins multiplied by 2.86. This claim was opposed by the employers, who asked that any consideration of marginal increases be deferred for an unspecified time.

The Commonwealth Government intervened in the public interest and made submissions as to the approach to be adopted to marginal fixation generally and to marginal fixation in the metal trades industry, as well as supplying information to the Commission about the economic situation and the Government's assessment of it. The Commonwealth Government neither opposed nor supported the claim. The South Australian Government neither opposed nor supported the claim for marginal increases, but did oppose any change in present relativities. The Queensland Government neither opposed nor supported the application for increases in margins, but submitted certain information regarding possible effects in Queensland. The Commission declined to allow submissions aimed at showing what might happen in State awards if State industrial tribunals followed their past practices with respect to the Commission's decisions.

The Commission concluded its consideration of the indicators with these words:

> '. . . our own investigation of the economy [is] that both from a long term point of view and also from a short term point of view the prospects for the economy may be reasonably regarded with optimism. On a consideration of the whole of the indicators, we conclude that national capacity has increased and that it is likely to continue to increase in the foreseeable future. In these circumstances we are confident that the economy is able to sustain the increase of ten per cent in margins in this award which we consider is otherwise justified.'

At the request of the parties the Commission took the unusual course of making a pronouncement early in the proceedings as to the extent to which the decision in the metal trades case should be used in other industries. The Commission re-affirmed what was said in the 1959 metal trades judgment that the decision would relate to the Metal Trades Award only, although they realized that the margin of the fitter had been used as a standard for other awards. In the present case the Commission stated it was not intended that the decision should be applied automatically outside the metal trades.

The order of the Commission was that the margins for adult males in the Metal Trades Award be increased by ten per cent, the increase to be calculated to the nearest shilling (10c) and to operate from the beginning of the first pay-period to commence on and after 22 April 1963.

National Wage Cases of 1965

The effect on margins of the judgment of the Commission in these cases was as follows. With effect from the first pay-period commencing on or after 1 July 1965 each margin in the Metal Trades Award was increased by an amount equal to 1½ per cent of the sum of the six Capital Cities basic wage and that margin. For further details *see* pages 342–3.

Basic Wage, Margins and Total Wage Cases of 1966

The Commonwealth Conciliation and Arbitration Commission in its judgment of 8 July 1966 on margins deferred any general increase pending a report by Commissioner Winter on a work value investigation of classifications in the Metal Trades Award. Pending this report the Commission decided to grant some immediate relief to low wage earners by inserting a new provision in awards by which it was prescribed that no adult male employee should be paid as a weekly wage for working the standard hours of work an amount less than his appropriate basic wage rate plus $3.75 a week. This decision operated as from the beginning of the first pay period to commence on or after 11 July 1966. For further particulars *see* pages 343–4.

Margins and Total Wage Cases of 1966 (Interim Margins)

On 5 December 1966 the Commonwealth Conciliation and Arbitration Commission (Gallagher and Moore *JJ*. and Commissioner Winter) began hearing claims by trade unions for an interim increase in margins pending the final decision in these cases (*see* judgment of Reference Bench page 344). The hearing continued until 8 December 1966 when the Commission reserved its decision.

On 22 December 1966 the Commission by majority decision (Moore *J*. and Commissioner Winter, with Gallagher *J*. dissenting) awarded an interim increase in margins in the following terms.

'We would therefore add to each margin a percentage of the sum of that margin and the Six Capital Cities basic wage. The percentage will vary as follows:

For margins less than $5	1 per cent
For margins $5 or more but less than $7.50	1½ per cent
For margins $7.50 or more but less than $11.20	2 per cent
For margins $11.20 or more	2½ per cent

'The increases awarded should be calculated to the nearest 10c provided that an increase of 5c should be taken to be an increase of 10c. This would result in the fitter receiving an increase of $1.10, the process worker 40c, classification 291 [*other adult male employees with not less than three months experience in the metal trades industry*] 30c, and the duster $1.30. As to rates such as those contained in Divisions P, Q and R [*extra rates for leading hands, for tradesmen in large power houses, and for employees engaged on ship repairs*], or similar divisions or prescriptions, it is our intention that the percentage increase shall apply to the sum of the Six Capital Cities basic wage plus the margin for the appropriate classification, plus the additional sum of money payable under Divisions P, Q, R [*see above*] or similar divisions or prescriptions. It is not our intention that the percentage increase should be applied twice in the wage of any employee. The sum of all payments above the basic wage will decide the percentage area into which an employee's rate falls. It is our intention that, consistent with past practice and the expressed attitudes of the parties, the decision should, subject to special cases, be of general application in other industries in the federal jurisdiction. We observe that the formula would not affect an increase for an employee earning only the basic wage. This, however, is a margins decision and such a decision never affects such a worker.

'In view of the time of the year and the very great practical difficulties which would arise if our decision were made to operate immediately we consider that this increase should operate from the beginning of the first pay period to commence on or after 23rd January 1967. We also consider that the form of the order should be settled by the Registrar with recourse to a member of the Commission.'

National Wage Cases of 1967

See Appendix for details.

Annual leave

The judgment delivered by the Commonwealth Court of Conciliation and Arbitration in the Commercial Printing Case of 1936, granting one week's annual leave with full pay to employees in the industry, has usually been regarded as the first statement in the Commonwealth jurisdiction of the principles involved in deciding whether or not annual leave should be awarded. Over a period of time annual leave was introduced industry by industry when and if the Judge responsible for the industry considered it proper.

In 1945 the question of annual leave was before the Court, and the Court in its judgment set out what it considered to be the principles to be applied in all applications for an extension of the annual leave period to fourteen days. Alteration of particular awards was left to the discretion of the single judge who heard the application.

Further inquiries into annual leave were conducted in 1960, 1962 and 1963, and the decisions in these inquiries are set out in the following paragraphs. Annual leave for employees under the jurisdiction of State awards, etc. is subject to separate determination, and a brief summary is given on pages 354–5. At present the majority of employees in Australia receive three weeks annual leave at least.

Commonwealth

Since 1960, three inquiries have been held following union claims to increase paid annual leave from two to three weeks in Commonwealth Awards. A report on these cases is given on pages 353–4.

Three Weeks Annual Leave Inquiry, 1960. In its judgment in this inquiry the Commonwealth Conciliation and Arbitration Commission stated that it had decided to reject the unions' application for three weeks annual leave. Part of the conclusion of the Commission stated:

> 'We accordingly dismiss this application because of the present economic situation. In doing so we would again repeat what we have said earlier in this judgment that we do not consider that employees under Federal awards have yet achieved all the leisure which they should achieve. We have done no more than decide that the present is not an appropriate time in which to award an extra week's paid leave.'

For further particulars *see* Year Book No. 49, pages 511–513.

Three Weeks Annual Leave Inquiry, 1962. In its judgment in this inquiry the Commonwealth Conciliation and Arbitration Commission made the following announcement:

> 'We have given careful consideration to the submissions which have been made to us in this case. The applicant unions have asked that we consider the claim a general one, the result to be applied to Federal awards generally. This must result in greater caution on our part in deciding whether or not the application should succeed. Our present intention is that an increase to three weeks' annual leave generally in secondary industry, subject to special cases, should be granted as soon as we are satisfied that the economy is in a position

to cope with the effects of such an increase. However, there are two aspects of the economic arguments about which we are troubled and about which we consider it too early to make any firm decision. These are, firstly, whether our internal economy has sufficiently recovered from the recession of late 1961 and, if so, what is the likely rate of its recovery in the future and, secondly, the effect on Australia of success or failure of the application of the United Kingdom to enter the European Common Market. There have been developments in relation to the latter question since the hearing which both emphasise its importance and the lack of accurate information as to what is going to happen and the short and long term effect on Australia's economy.

'So that we may be able better to assess these matters we have decided to adjourn these proceedings until a date in February or March next which will be announced later when the parties and interveners will be able to make such further submissions on these two matters as they may desire.'

Further details were published in Year Book No. 50, page 496.

Three Weeks Annual Leave Inquiry, 1963. On 5 February 1963 the Commonwealth Conciliation and Arbitration Commission, constituted by Kirby *C.J.* (President), Moore *J.* (Deputy President) and Commissioner Apsey, commenced hearing the application, which had been adjourned from May 1962, to vary the Metal Trades Award to provide three weeks paid annual leave, instead of two (*see* above).

The hearing was continued during March and April 1963 jointly with the Metal Trades Margins case hearing (*see* pages 351–2), and in its judgment on 18 April 1963 the Commission said it would implement its intention of granting three weeks annual leave generally in secondary industry, subject to special cases. The Commission announced that the Metal Trades Award would be varied to produce the following result: 'A period of 21 consecutive days' leave shall be allowed to employees who have completed twelve months continuous service by or after 30th November 1963.' Provision for proportionate leave for periods of employment of one month and over was made in respect of employment after 1 June 1963. The application of the new standard of annual leave for secondary industry in other Federal awards would be a matter for individual Commissioners upon proper application being made for variations.

In a decision given on 22 October 1963 the Commission, comprising Wright *J.* (Acting President), Moore *J.* (Deputy President) and Commissioner Winter, unanimously rejected an application by employers' organisations firstly for permission, at the employers' discretion, to require employees to take their annual leave in two periods of seven and fourteen days respectively, and secondly that the time after accrual within which leave must be taken should be extended to nine months when leave is taken in one period and twelve months when leave is taken in more than one period.

New South Wales

Employees in New South Wales in private industry, other than those covered by Federal awards, were granted three weeks annual leave by an amendment to the Annual Holidays Act passed in 1958. In 1964 the State Government granted its employees four weeks annual leave effective from 1 January 1964. From 29 September 1964 annual holiday pay for employees covered by provisions of the Annual Holidays Act has been calculated on the basis of the employee's current weekly earnings instead of current award rates.

Victoria

Following the decision of the Commonwealth Conciliation and Arbitration Commission in April 1963 (*see* above) individual Wages Boards commenced to alter provisions of their determinations to grant employees an extra week of leave. By September 1963 the majority of Boards had included three weeks annual leave in their determinations.

In December 1963 the Industrial Appeals Court upheld an appeal by employees against the determination of the Photographic Goods Board which stated that an employer may direct the workers or group of workers to take their annual leave in two periods of two consecutive weeks and one week respectively.

Queensland

In June 1963 the Full Bench of the Industrial Conciliation and Arbitration Commission granted an extra week of annual leave to employees with twelve months continuous service on or after 30 November 1963. This move implemented a previous decision of the Commission in which it was decided, as a matter of policy, to grant increased leave to persons already enjoying two weeks leave.

The decision applied to day workers and non-continuous shift workers receiving two weeks leave; continuous shift workers receiving three weeks leave; and day workers and shift workers receiving additional leave in lieu of extra payment for working on statutory holidays. The order became effective as from 1 June 1963.

The terms of the decision of the Commonwealth Conciliation and Arbitration Commission, as handed down in April 1963 (*see* page 354) were to apply to awards of the Industrial Conciliation and Arbitration Commission of Queensland with the exception that, in the State awards, *pro rata* payment for leave not taken at the termination of employment was to be expressed at hours per month. The decision did not apply to employees in primary industry—apart from the sugar industry—or those in western areas. Extra leave for these employees was granted as a result of separate applications.

South Australia

The Full Bench of the South Australian Industrial Court in May 1963 announced an increased standard of annual leave in the State, adopting three weeks as the standard as fixed by the Commonwealth Conciliation and Arbitration Commission (*see* page 354).

The Court, as a general indication as to its attitude, expressed the view that annual leave should be taken at a time fixed either by agreement or, if this is not possible, at a time fixed by the employer. The leave should be allowed in two parts and one part must be of at least two weeks duration. These, however, were factors which could vary from award to award and their determination would depend on the needs of the particular industry.

Western Australia

Following a general inquiry concerning Annual Leave and Public Holidays the Court of Arbitration in June 1963 adopted three weeks as the new standard for the normal period of annual leave in State awards, with four weeks for seven-day shift workers. The date of operation was the same as that decided by the Commonwealth Conciliation and Arbitration Commission (*see* page 354). Existing awards and agreements which already provided annual leave in excess of the Court's standard were to be examined separately to ascertain whether special circumstances existed to justify leave greater than the normal standard. The standard number of public holidays was retained at ten a year.

In November 1963 the Court refused an application by employers for the right to split the annual leave into two parts since it decided to follow the decision of most other State tribunals and allow the additional leave in conformity with conditions similar to those prescribed by the Commonwealth Conciliation and Arbitration Commission. The right to split the leave would be allowed by the Court only in exceptional circumstances, unless all the parties concerned agreed to the inclusion of such a provision.

Tasmania

Following an amendment to the Wages Board Act in 1961, Wages Boards were permitted to grant employees up to three weeks paid recreational leave. Between June 1962 and early 1963 determinations of Wages Boards were amended to provide for three weeks annual leave for employees, to operate from 1 January 1963.

Generally, most Wages Boards adopted provisions to enable leave to be taken in one consecutive period within six months from the end of the preceding year of employment or, if the employer and employee agree, in two separate periods, the lesser of which shall be of not less than seven consecutive days.

Long service leave

Paid long service leave, i.e. leave granted to workers who remain with the one employer over an extended period of time, has been included in the provisions of industrial legislation or industrial awards, etc. in the several States and a brief summary is given in the following paragraphs. The position in regard to Commonwealth award employees is also summarised. In all cases the transfer of ownership of a business does not constitute a break in continuity of service with the same employer.

Commonwealth

Until May 1964 the Commonwealth Conciliation and Arbitration Commission had not included provision for long service leave in its awards, and had refrained from determining disputes relating to this subject except in the case of the Northern Territory and the Australian Capital Territory (*see* page 356). Consequently, until then, the provisions of the various State Acts relating to long service leave applied to workers covered by awards of the Commonwealth. The applicability of long service leave provisions under State law to workers under Commonwealth awards had been tested before the High Court and the Privy Council, and such provisions had been held to be valid.

The Commission's position was set out in its decision, issued on 16 September 1959, regarding disputes on the inclusion, in the Graphic Arts (Interim) Award, 1957, of provisions for long service leave. It stated that it should refrain until further order from determining the disputes so far as they concerned long service leave and that if in future the Commission decided that long service leave on a national basis was desirable, it was open to proceed to the making of an award on the matter.

Following the hearing of claims for long service leave provisions by employers in the graphic arts and metal trades industries in August 1963, the Full Bench of the Commonwealth Conciliation and Arbitration Commission on 11 May 1964 announced its decision that long service leave entitlement would be calculated on the basis of thirteen weeks for twenty years of unbroken employment, in respect of employment before 11 May 1964 (or, in New South Wales, 1 April 1963), and at the rate of thirteen weeks for fifteen years in respect of service after 11 May 1964 (or, in New South Wales, 1 April 1963). After further periods of ten years, employees would be entitled to an additional *pro rata* period of leave calculated on the same basis. Those employees who completed an unbroken contract of employment of ten years but less than fifteen years, and whose employment was terminated by death or by the employer for any cause other than serious and wilful misconduct, or by the employee on account of illness, incapacity or domestic or other pressing necessity, would be entitled to *pro rata* payment. The rate of payment while on leave would be current award rates which would be subject to basic wage changes and marginal adjustments which occurred during the leave period.

Following applications by employers in the metal trades and printing industries, the Full Bench of the Commission in a judgment delivered on 23 December 1964 extended the provisions of the awards to cover non-unionist employees. The decision rejected the unions' argument that the Commission had no jurisdiction to make long service leave awards binding in respect of non-unionists. The Commission, in a separate decision, varied the provisions of the awards so that an employer would not be required to grant an employee long service leave until the entitlement equalled thirteen weeks for the first period of entitlement and eight and two-thirds weeks in respect of any subsequent period of entitlement. These variations would be effective on and from 1 December 1964.

Australian Territories. Long service leave codes for employees covered by Northern Territory and Australian Capital Territory awards were originally prescribed on 4 December 1961 by the Commonwealth Conciliation and Arbitration Commission in Presidential Session. The Commission decided that employees should be granted three months long service leave after twenty years service with one employer, even if part of this service was outside the Territory. In addition, the Australian Capital Territory code prescribed that employees presently employed might 'go back for a period of 25 years in regard to the calculation of their present or future entitlement of long service leave'. In December 1964 the Commission amended the majority of awards covering employees in the Northern Territory and the Australian Capital Territory by granting long service leave on the basis of thirteen weeks after fifteen years service.

Stevedoring Industry. The *Stevedoring Industry Act* 1962, which came into force on 19 November 1962, amended the *Stevedoring Industry Act* 1956–1961 by extending the eligibility and qualifying periods of the long service leave provisions of the Act. No changes were made to the entitlement for long service leave, which remained at thirteen weeks after twenty years qualifying service and six and a half weeks for each subsequent ten years qualifying service. The *Stevedoring Industry Act* 1966, which operated from 29 October 1966, reduced the qualifying period for thirteen weeks leave from twenty years to fifteen years.

New South Wales

Long service leave was first introduced for the majority of workers by the Industrial Arbitration Act, 1951, which provided such leave for workers under State awards. This Act was replaced by the Long Service Leave Act, 1955, which extended the benefits to any worker within the State. An amendment to the Act in April 1963 provided for three months long service leave for fifteen years continuous service with the same employer and proportionate amounts on this basis after a minimum of five years service. The Long Service Leave (Metalliferous Mining Industry) Act, 1963 conferred on certain workers in the metalliferous mining industry the right to three months long service leave after ten years service. This Act operated from 1 January 1964.

Victoria

The *Factories and Shops (Long Service Leave) Act* 1953 first provided for long service leave for workers in Victoria, the provisions of this Act being subsequently incorporated in the Labour and Industry Act. Leave provided for was thirteen weeks for twenty years continuous service with the same employer. Contributions by employers to retirement schemes were to be taken into consideration in dealing with exemptions from the Act.

An amendment to the Labour and Industry Act in December 1964 granted employees, from 1 January 1965, thirteen weeks leave after fifteen years continuous service. Workers who terminated their employment after ten years but less than the qualifying fifteen years would be able to obtain a *pro rata* entitlement subject to the existing special conditions of the Act. Following amendment to the Public Service Act in 1964, public servants became entitled to four and a half months leave after fifteen years service instead of six months after twenty years.

Queensland

In 1952 The Industrial Conciliation and Arbitation Acts were amended to include long service leave provisions for employees within the jurisdiction of the Industrial Court, and the Acts were amended again in 1955 to extend these provisions to any employee in respect of whose employment there was not in force an award or industrial agreement under the Act and to seasonal workers in sugar mills and meat works. Leave provided for was thirteen weeks for twenty years continuous service with the same employer.

An amendment to The Industrial Conciliation and Arbitration Acts was passed and assented to in December 1964 granting employees long service leave of thirteen weeks after fifteen years continuous service. The amendment retained *pro rata* leave entitlement after ten years service and operated on and from 11 May 1964.

South Australia

The Long Service Leave Act, passed in 1957, exempts a large number of industrial agreements, with wide industrial coverage, from specifying long service leave for employees. For those covered by the Act leave provided for is seven days in the eighth and in each subsequent year of continuous service. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions under the Act.

On 24 December 1964 long service leave of thirteen weeks after fifteen years continuous service in respect of employment on and from 11 May 1964 was granted to shop assistants by agreement between employers and employees.

Western Australia

The Long Service Leave Act was passed in 1958, but it did not apply to employees whose conditions of work were regulated under the Western Australian Industrial Arbitration Act. The Court of Arbitration of Western Australia in an order dated 1 April 1958 incorporated in most of the awards and agreements within its jurisdiction provisions similar to those in the Long Service Leave Act. Leave provided for was thirteen weeks for twenty years continuous service with the same employer. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions from the Act.

In September 1964 the Industrial Commission began to amend the long service leave provisions of its awards and industrial agreements to provide for thirteen weeks leave after fifteen years service on or from 1 October 1964. *Pro rata* entitlement would accrue after ten years service. The *Long Service Leave Amendment Act* (*No.* 2), *1964*, introduced in October 1964, was in the same terms as the amendments made by the Commission to the various awards and agreements.

Tasmania

The Long Service Leave Act, which was passed in 1956, provided for thirteen weeks leave for twenty years continuous service with the same employer. Contributions by employers to retirement schemes could be taken into consideration in dealing with exemptions from the Act. An amendment to the Long Service Leave Act, assented to on 17 December 1964, granted thirteen weeks leave after fifteen years continuous service. The amendment operated on and from 11 May 1964.

INDUSTRIAL DISPUTES

Detailed information regarding industrial disputes involving stoppage of work is given in the *Labour Report*. A table showing statistics of industrial disputes for each year from 1913 is contained in the Appendix to *Labour Report No.* 52, 1965 and 1966.

Particulars of all disputes in progress during the year are included in the annual figures, whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of 'the number of disputes' and 'workers involved' in disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years.

The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1966, classified according to industry groups.

INDUSTRIAL DISPUTES(*a*): INDUSTRY GROUPS, AUSTRALIA, 1966

Industry group	Number	Workers involved			Working days lost	Estimated loss in wages ($'000)
		Directly	Indirectly (*b*)	Total		
Agriculture, grazing, etc.	..	..	..	..	..	..
Coal mining	212	46.687	..	46,687	67,870	660.0
Other mining and quarrying	17	7,787	630	8,417	19,558	304.9
Engineering, metals, vehicles, etc.	385	113,785	2,161	115,946	150,307	1,452.0
Textiles, clothing and footwear	9	1,494	19	1,513	2,649	23.0
Food, drink and tobacco	124	38,387	3,228	41,615	94,505	823.8
Sawmilling, furniture, etc.	..	..	..	..	..	..
Paper, printing, etc.	17	6,445	..	6,445	8,367	87.8
Other manufacturing	110	39,614	1,065	40,679	105,791	1,054.9
Building and construction	248	76.853	362	77,215	144,479	1,549.6
Railway and tramway services	14	19,027	..	19,027	42,454	417.3
Road and air transport	41	4,613	2,391	7,004	67,567	688.3
Shipping	7	2,423	..	2,423	2,479	21.9
Stevedoring	49	8,979	..	8,979	4,772	51.0
Amusement, hotels, personal service, etc.	14	344	25	369	955	8.6
Other industries(*c*)	26	18,532	..	18,532	20,331	159.3
Total	1,273	384,970	9,881	394,851	732,084	7,302.5

(*a*) Refers only to disputes involving a stoppage of work of 10 man-days or more. (*b*) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (*c*) Includes Communication; Finance and property; Wholesale and retail trade; Public authority (n.e.i.); and Community and business services.

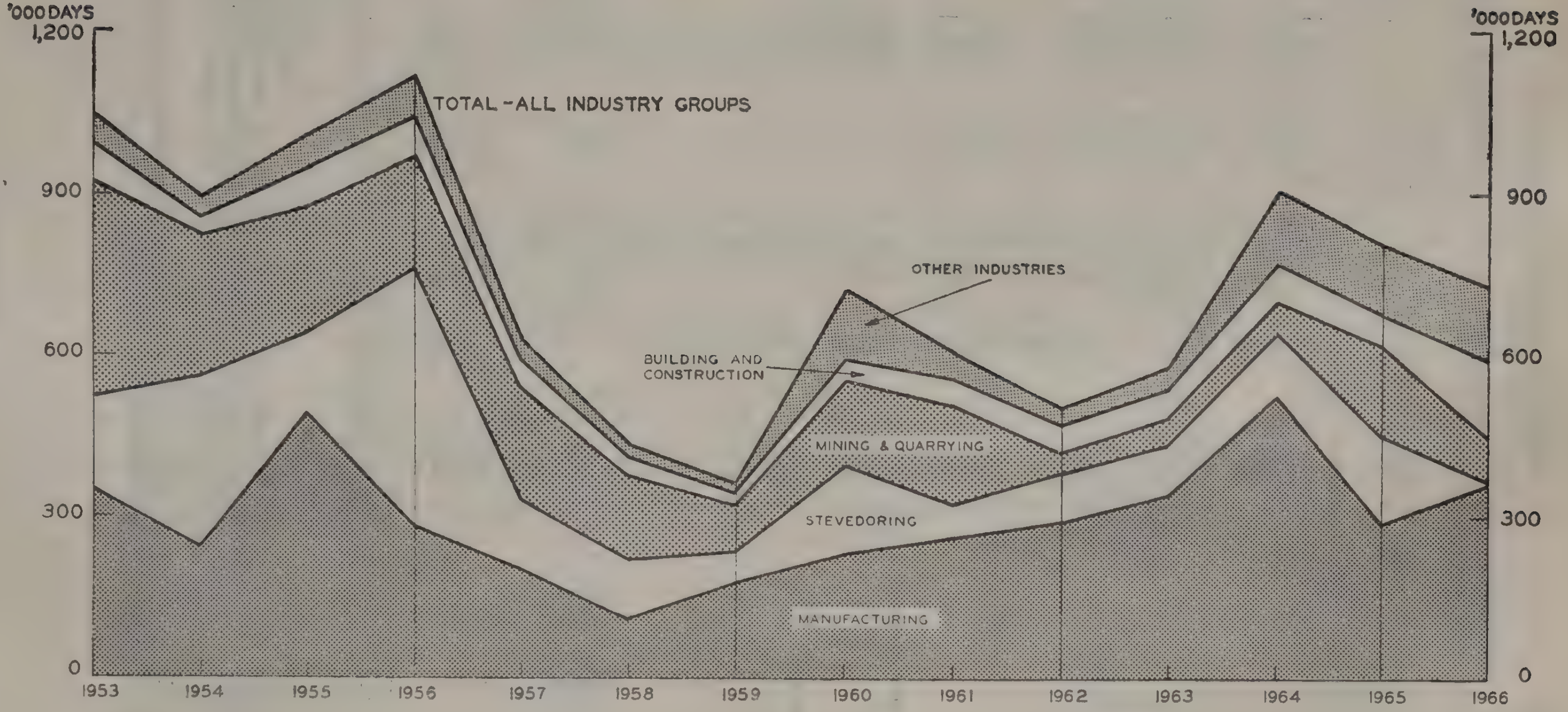
A graph showing, for the years 1953 to 1966, the working days lost as a result of industrial disputes in the main industry groups is shown on plate 25 opposite.

The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved and the losses in working days and wages caused by disputes which were current during each of the years 1962 to 1966.

PLATE 25

INDUSTRIAL DISPUTES, AUSTRALIA, 1953 TO 1966

WORKING DAYS LOST—INDUSTRY GROUPS



INDUSTRIAL DISPUTES(*a*): STATES AND TERRITORIES, 1962 TO 1966

State or Territory	Year	Number	Workers involved			Working days lost	Estimated loss in wages ($'000)
			Directly	Indirectly (*b*)	Total		
New South Wales	1962	752	195,344	13,623	208,967	303,400	2,571.7
	1963	817	214,643	4,333	218,976	307,440	2,629.5
	1964	828	221,510	7,566	229,076	320,568	2,996.2
	1965	832	244,900	6.156	251.056	367,942	3.479.1
	1966	835	203,701	6,315	210,016	400,111	4,026.0
Victoria	1962	166	72,525	720	73.245	100,606	837.3
	1963	180	85,757	2,221	87,978	172,963	1,510.2
	1964	206	188,836	1,239	190,075	359,567	3,428.2
	1965	208	118.534	3,264	121,798	214,300	2,061.6
	1966	179	99,625	1,865	101,490	219,605	2,097.2
Queensland	1962	175	33,445	8,321	41,766	75,951	598.8
	1963	160	37,047	7,266	44,313	54,861	468.1
	1964	198	84,951	7,745	92,696	157,571	1,453.3
	1965	186	48.328	5,241	53,569	189,941	2,221.2
	1966	171	67,109	1,622	68,731	80,692	860.8
South Australia	1962	31	11,748	100	11,848	14,599	118.8
	1963	35	11,938	107	12,045	8,957	81.9
	1964	55	22.851	189	23,040	63,785	585.2
	1965	48	28,323	143	28,466	26,379	253.3
	1966	42	8,697	63	8,760	20,903	199.7
Western Australia	1962	28	8,280	83	8,363	6,300	50.0
	1963	28	42,390	194	42,584	31,969	252.5
	1964	26	6,093	72	6,165	7,148	62.6
	1965	33	12.611	..	12,611	10,020	100.8
	1966	25	2,860	16	2,876	6,239	64.5
Tasmania	1962	18	5,048	78	5,126	3,993	35.1
	1963	11	5,019	..	5,019	2,933	26.8
	1964	8	1,898	..	1,898	1,939	18.0
	1965	17	5.131	..	5,131	3.894	41.4
	1966	14	2,541	..	2,541	3,119	34.8
Northern Territory	1962	6	428	..	428	298	2.5
	1963	8	915	..	915	968	9.3
	1964	6	602	..	602	437	4.3
	1965	17	1,742	6	1,748	2.784	35.0
	1966	4	259	..	259	1,211	17.3
Australian Capital Territory	1962	7	4,005	105	4,110	3,608	29.9
	1963	11	858	20	878	1,477	13.1
	1964	7	2,076	..	2,076	1,343	13.1
	1965	5	665	..	665	609	6.2
	1966	3	178	..	178	204	2.2
Australia	1962	1,183	330,823	23,030	353,853	508,755	4,244.1
	1963	1,250	398,567	14,141	412,708	581,568	4,991.5
	1964	1,334	528,817	16,811	545,628	911,358	8,560.9
	1965	1,346	460.234	14.810	475,044	815.869	8.198.5
	1966	1,273	384,970	9,881	394,851	732,084	7,302.5

(*a*) Refers only to disputes involving a stoppage of work of 10 man-days or more. (*b*) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

Duration of disputes

The duration of each industrial dispute involving a loss of work, i.e. the time between the cessation and resumption of work, has been calculated in working days, exclusive of Saturdays, Sundays and holidays, except where the establishment involved carries on a continuous process (e.g. metal smelting and cement manufacture).

The following table shows, for the year 1966, industrial disputes in coal mining, stevedoring and other industries classified according to duration.

INDUSTRIAL DISPUTES(*a*): DURATION, BY INDUSTRY GROUP, AUSTRALIA, 1966

Duration (working days)	Number	Workers involved(*b*)		Working days lost		Estimated loss in wages ($'000)
		Number	Proportion of total (per cent)	Number	Proportion of total (per cent)	
COAL MINING						
1 day and less	148	23,157	49.6	15,844	23.3	155.7
2 days and more than 1 day	37	18,900	40.5	26,914	39.7	262.5
3 days and more than 2 days	12	1,103	2.4	2,892	4.3	34.8
Over 3 days and less than 5 days	9	1,887	4.0	6,725	9.9	64.5
5 days and less than 10 days	5	648	1.4	3,468	5.1	32.0
10 days and less than 20 days	1	992	2.1	12,027	17.7	110.5
20 days and less than 40 days	..	..	..	..	..	..
40 days and over	..	..	..	..	..	..
Total	*212*	*46,687*	*100.0*	*67,870*	*100.0*	*660.0*
STEVEDORING						
1 day and less	37	8,279	92.2	3,544	74.3	37.6
2 days and more than 1 day	10	583	6.5	924	19.3	10.4
3 days and more than 2 days	2	117	1.3	304	6.4	3.1
Over 3 days and less than 5 days	..	..	..	..	..	..
5 days and less than 10 days	..	..	..	..	..	..
10 days and less than 20 days	..	..	..	..	..	..
20 days and less than 40 days	..	..	..	..	..	..
40 days and over	..	..	..	..	..	..
Total	*49*	*8,979*	*100.0*	*4,772*	*100.0*	*51.0*
OTHER INDUSTRIES						
1 day and less	405	190,943	56.3	126,133	19.1	1,171.8
2 days and more than 1 day	245	82,894	24.5	144,438	21.9	1,369.5
3 days and more than 2 days	131	20,095	5.9	51,033	7.7	513.9
Over 3 days and less than 5 days	122	20,746	6.1	80,978	12.3	829.8
5 days and less than 10 days	74	14,336	4.2	92,461	14.0	1,049.8
10 days and less than 20 days	31	7,140	2.1	88,901	13.5	876.7
20 days and less than 40 days	2	2,828	0.8	62,454	9.5	629.4
40 days and over	2	203	0.1	13,044	2.0	150.6
Total	*1,012*	*339,185*	*100.0*	*659,442*	*100.0*	*6,591.5*
ALL INDUSTRIES						
1 day and less	590	222,379	56.3	145,521	19.9	1,365.1
2 days and more than 1 day	292	102,377	25.9	172,276	23.5	1,642.4
3 days and more than 2 days	145	21,315	5.4	54,229	7.4	551.7
Over 3 days and less than 5 days	131	22,633	5.7	87,703	12.0	894.3
5 days and less than 10 days	79	14,984	3.8	95,929	13.1	1,081.8
10 days and less than 20 days	32	8,132	2.1	100,928	13.8	987.3
20 days and less than 40 days	2	2,828	0.7	62,454	8.5	629.4
40 days and over	2	203	0.1	13,044	1.8	150.6
Grand total	**1,273**	**394,851**	**100.0**	**732,084**	**100.0**	**7,302.5**

(*a*) Refers only to disputes involving a stoppage of work of 10 man-days or more. (*b*) Includes workers indirectly involved. *See* footnote (*b*) to table on page 360.

Causes of disputes

Stoppages are analysed in three separate groups, 'Coal mining', 'Stevedoring', and 'Other industries'. Causes have been grouped under four main headings: (1) Wages, hours and leave; (2) Physical working conditions and managerial policy; (3) Trade unionism; (4) Other causes. The first group is restricted to disputes involving general principles relating to wages, hours and leave; minor questions regarding the claims to pay or leave by individual employees are included under managerial policy. The second group comprises disputes regarding physical working conditions and general questions of managerial policy, including disciplinary action, the promotion of employees, the employment of particular individuals, personal disagreements between employees and supervisory staff, and disputes arising from the computation of wages, leave, etc., in individual cases. The third group includes stoppages over employment of non-unionists, inter-union and intra-union disputes, disputes over recognition of union activities, and sympathy stoppages in support of employees in another industry. The last group comprises disputes by way of protest against situations not arising from the usual relationship of employer and employee, e.g. political matters, and cases (occurring mainly in the coal mining industry) where the cause of the stoppage is not officially made known to the management.

The following tables show particulars of industrial disputes classified according to cause, in three industry groups for 1966, and according to cause for the years 1962 to 1966.

INDUSTRIAL DISPUTES(*a*): CAUSES, BY INDUSTRY GROUP, AUSTRALIA, 1966

Cause of dispute	Coal mining	Stevedoring	Other industries	All industries
Number of disputes—				
Wages, hours and leave	5	2	318	325
Physical working conditions and managerial policy	108	41	565	714
Trade unionism	23	5	115	143
Other	76	1	14	91
Total disputes	*212*	*49*	*1,012*	*1,273*
Workers involved(*b*)—				
Wages, hours and leave	3,262	2,350	200,001	205,613
Physical working conditions and managerial policy	18,202	4,206	102,878	125,286
Trade unionism	2,039	2,191	18,163	22,393
Other	23,184	232	18,143	41,559
Total workers involved	*46,687*	*8,979*	*339,185*	*394,851*
Working days lost—				
Wages, hours and leave	4,248	958	387,252	392,458
Physical working conditions and managerial policy	37,367	2,288	230,220	269,875
Trade unionism	2,710	1,341	28,834	32,885
Other	23,545	185	13,136	36,866
Total working days lost	*67,870*	*4,772*	*659,442*	*732,084*

(*a*) Refers only to disputes involving a stoppage of work of 10 man-days or more. (*b*) Includes workers indirectly involved. *See* note (*b*) to table on page 360.

INDUSTRIAL DISPUTES(*a*): CAUSES, AUSTRALIA, 1962 TO 1966

Cause of dispute	1962	1963	1964	1965	1966
Number of disputes—					
Wages, hours and leave	290	279	320	426	325
Physical working conditions and managerial policy	707	748	758	735	714
Trade unionism	92	115	136	101	143
Other	94	108	120	84	91
Total disputes	*1,183*	*1,250*	*1,334*	*1,346*	*1,273*
Workers involved(*b*)—					
Wages, hours and leave	133,312	171,551	235,846	268,105	205,613
Physical working conditions and managerial policy	179,321	142,998	191,354	143,111	125,286
Trade unionism	15,243	22,251	31,670	17,722	22,393
Other	25,977	75,908	86,758	46,106	41,559
Total workers involved	*353,853*	*412,708*	*545,628*	*475,044*	*394,851*
Working days lost—					
Wages, hours and leave	194,427	274,901	556,948	528,722	392,458
Physical working conditions and managerial policy	274,091	233,502	257,062	235,542	269,875
Trade unionism	22,418	23,268	33,392	18,873	32,885
Other	17,819	49,897	63,956	32,732	36,866
Total working days lost	*508,755*	*581,568*	*911,358*	*815,869*	*732,084*

(*a*) Refers only to disputes involving a stoppage of 10 man-days or more. (*b*) Includes workers indirectly involved. *See* note (*b*) to table on page 360.

Methods of settlement of disputes

The following table shows particulars of industrial disputes for 1966, classified according to method of settlement, in three industry groups.

INDUSTRIAL DISPUTES(*a*): METHODS OF SETTLEMENT, BY INDUSTRY GROUP AUSTRALIA, 1966

Method of settlement	Coal mining	Stevedoring	Other industries	All industries
NUMBER OF DISPUTES				
By private negotiation	29	1	242	272
By mediation not based on legislation	..	..	..	..
State legislation—	..	1	213	214
Under State Conciliation, etc., legislation	..	..	..	..
By reference to State Government officials				
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—	..	2	158	160
Conciliation and Arbitration Act	14	..	..	14
Coal Industry Acts	..	..	..	..
Stevedoring Industry Act	..	..	6	6
Other Acts	..	24	..	24
By reference to Commonwealth Government officials	..	..	..	..
By filling places of workers on strike or locked out	..	..	1	1
By closing down establishment permanently	169	21	391	581
By resumption without negotiation	..	..	..	..
By other methods				
Total	212	49	(*c*) 1,011	(*c*) 1,272

For footnotes *see* next page.

INDUSTRIAL DISPUTES(*a*): METHODS OF SETTLEMENT, BY INDUSTRY GROUP AUSTRALIA, 1966—*continued*

Method of settlement	Coal mining	Steve-doring	Other industries	All industries
WORKERS INVOLVED(*b*)				
By private negotiation	2,774	95	31,352	34,221
By mediation not based on legislation	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	..	65	37,541	37,606
By reference to State Government officials	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act	..	302	22,914	23,216
Coal Industry Acts	1,677	..	..	1,677
Stevedoring Industry Act	..	..	..	..
Other Acts	..	..	5,652	5,652
By reference to Commonwealth Government officials	..	1,750	..	1,750
By filling places of workers on strike or locked out	..	..	..	..
By closing down establishment permanently	..	..	11	11
By resumption without negotiation	42,236	6,767	241,693	290,696
By other methods	..	..	..	..
Total	46,687	8,979	(*c*) 339,163	(*c*) 394,829
WORKING DAYS LOST				
By private negotiation	5,622	10	131,855	137,487
By mediation not based on legislation	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	..	180	113,317	113,497
By reference to State Government officials	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act	..	624	96,125	96,749
Coal Industry Acts	5,048	..	..	5,048
Stevedoring Industry Act	..	..	..	..
Other Acts	..	..	5,506	5,506
By reference to Commonwealth Government officials	..	1,408	..	1,408
By filling places of workers on strike or locked out	..	..	..	..
By closing down establishment permanently	..	..	594	594
By resumption without negotiation	57,200	2,550	311,803	371,553
By other methods	..	..	..	..
Total	67,870	4,772	(*c*) 659,200	(*c*) 731,842

(*a*) Refers only to disputes involving a stoppage of work of 10 man-days or more. (*b*) Includes workers indirectly involved. *See* note (*b*) to table on page 360. (*c*) Differences between these figures and corresponding figures in tables on pages 358, 360–3 are due to disputes which were incomplete at the end of the year.

WORKERS' COMPENSATION LEGISLATION

A conspectus of the principal provisions of Workers' Compensation Acts in force in Australia at 31 December 1964 is included in *Labour Report* No. 51, pages 215–23.

LABOUR ORGANISATIONS

Labour organisations in Australia

The figures shown in this section are prepared from a special collection of membership of labour organisations at 31 December each year. The affairs of single unions are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information. More detailed statistics appear in the annual *Labour Report*.

Trade Unions

The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organisation, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organisations: (*a*) the local independent; (*b*) the State; (*c*) the interstate; and (*d*) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organisation of interstate or federated unions vary greatly in character. In some unions the State organisations are bound together under a system of unification with centralised control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. Statistics relating to interstate or federated trade unions are shown in the table on page 366.

Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organisations. The following table shows the position at the end of each of the years 1964 to 1966.

TRADE UNIONS: NUMBER AND MEMBERSHIP, STATES AND TERRITORIES, 1964 TO 1966

State or Territory	Number of separate unions			Number of members ('000)			Percentage increase in membership(*a*)		
	1964	1965	1966	1964	1965	1966	1964	1965	1966
New South Wales	223	222	220	795.1	825.8	817.3	1.6	3.9	−1.0
Victoria	157	156	154	525.8	537.8	539.4	2.1	2.3	0.3
Queensland	141	140	140	350.6	353.3	351.6	3.3	0.8	−0.5
South Australia	137	137	136	166.9	174.0	178.5	3.6	4.2	2.6
Western Australia	154	155	157	135.1	139.2	146.6	4.7	3.1	5.3
Tasmania	111	109	110	59.9	63.4	65.5	4.2	6.0	3.3
Northern Territory(*b*)	30	33	38	3.4	3.5	4.1	(*b*)	(*b*)	(*b*)
Australian Capital Territory(*b*)	59	64	66	18.0	19.1	20.7	(*b*)	(*b*)	(*b*)
Australia	(*c*) 340	(*c*) 334	(*c*) 330	2,054.8	2,116.2	2,123.5	2.6	3.0	0.3

(*a*) On preceding year. (*b*) In some cases union members in the Territories associated with State organisations are reported under the heading of that State. The annual figures reflect, in part, progressive improvements to more accurate reporting, and the comparability of totals for the Territories is affected by this aspect. (*c*) Without interstate duplication. *See* below.

Minus sign (−) denotes decrease.

In the preceding table, under the heading 'Number of separate unions', a union reporting members in a State or Territory is counted as one union within that State or Territory. The figures do not add to the Australian total (shown in the last line) because a union represented in more than one State or Territory is included in the figure for each State or Territory in which it is represented, but is counted only once in the Australian total.

A table showing the number and membership of trade unions in Australia for the years 1912 to 1964 is included in Appendix XII to *Labour Report* No. 51.

The following table shows the number of unions and members thereof in Australia at the end of each of the years 1964 to 1966 classified according to industry group. The table does not supply a precise classification of trade union members by industry because where the members of a union are employed in a number of industries they have been classified to the predominant industry for the union concerned.

TRADE UNIONS: INDUSTRY GROUPS, AUSTRALIA, 1964 TO 1966

Industry group	1964		1965		1966	
	No. of unions (*a*)	No. of members	No. of unions (*a*)	No. of members	No. of unions (*a*)	No. of members
		'000		'000		'000
Agriculture, grazing, etc.	3	63.3	3	63.9	3	61.3
Mining and quarrying	12	35.2	12	35.9	12	35.7
Manufacturing—						
Engineering, metals, vehicles, etc.	12	312.8	11	328.0	10	331.8
Textiles, clothing and footwear	6	109.9	6	113.7	6	107.8
Food, drink and tobacco	33	130.9	32	130.0	32	134.5
Sawmilling, furniture, etc.	6	39.5	6	39.5	6	38.9
Paper printing, etc.	6	53.2	6	54.7	5	54.8
Other manufacturing	29	95.0	28	95.1	27	94.7
All manufacturing groups	*92*	*741.3*	*89*	*761.1*	*86*	*762.4*
Building and construction	24	146.9	24	150.9	24	143.5
Railway and tramway services	24	131.2	24	132.0	24	129.3
Road and air transport	11	68.0	11	71.7	11	72.9
Shipping and stevedoring	14	35.1	14	35.4	13	33.9
Banking, insurance and clerical	17	132.8	15	137.3	15	142.8
Wholesale and retail trade	12	86.3	12	86.2	12	86.5
Public administration(*b*)	72	389.2	71	405.9	71	413.5
Amusement, hotels, personal service, etc.	22	54.8	22	56.3	22	55.8
Other industries(*c*)	37	170.6	37	179.6	37	186.0
Total	**340**	**2,054.8**	**334**	**2,116.2**	**330**	**2,123.5**

(*a*) Without interstate duplication. *See* above. (*b*) Includes communication, municipal, etc. (*c*) Includes community and business services.

Number of Trade Union members and proportion of wage and salary earners. The following table shows the estimated percentages of wage and salary earners in employment who are members of trade unions. As estimates of wage and salary earners in employment do not include employees engaged in rural industry or in private domestic service, the percentages have been calculated on figures obtained by adding to the end of year estimates the number of employees in rural industry and in private domestic service recorded at the nearest available population census. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table must be regarded as approximations.

TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA, 1954 TO 1966

Year	Number of members ('000)			Proportion of total wage and salary earners(a) (Per cent)		
	Males	Females	Persons	Males	Females	Persons
1954 . .	1,448.2	339.3	1,787.5	66	45	61
1961 . .	1,521.9	372.7	1,894.6	63	41	57
1964 . .	1,624.0	430.8	2,054.8	62	41	56
1965 . .	1,663.4	452.8	2,116.2	62	41	56
1966	1,657.5	466.0	2,123.5	60	40	54

(a) *See* text above.

Interstate or Federated Trade Unions. The following table gives particulars of the number and membership of interstate or federated trade unions in 1966.

INTERSTATE OR FEDERATED TRADE UNIONS(a): AUSTRALIA, 1966

	Unions operating in—					Total
	2 States	3 States	4 States	5 States	6 States	
Number of unions . .	10	4	22	31	75	142
,, ,, members ('000) .	20.9	21.0	243.3	402.5	1,242.0	1,929.7

(a) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory or the Australian Capital Territory or both.

Organisations registered under the (Commonwealth) Conciliation and Arbitration Act

Under Part VIII. of the *Conciliation and Arbitration Act* 1904–1966 any association of employers in an industry who have, or any employer who has, employed, on an average taken per month, not less than 100 employees during the six months preceding application for registration, and any association of not less than 100 employees in any industry, may be registered. However, the Public Service Arbitration Act provides that an association of less than 100 employees may be registered as an organisation under the Conciliation and Arbitration Act if its members comprise at least three-fifths of all persons engaged in that industry in the Public Service. Such organisations are included in the figures shown below. Registered unions include both interstate associations and associations operating within one State only. Registration under Commonwealth legislation began in 1906. At the end of 1966 the number of employers' organisations registered under the provisions of the Act was 69. The number of unions registered at the end of 1966 was 152, with membership of 1,772,000, representing 83 per cent of the total membership of all trade unions in Australia. Lists of organisations of employees and of employers registered under this Act are contained in the *Industrial Information Bulletin*, Vol. 22, No. 1, January 1967 published by the Department of Labour and National Service.

Central Labour Organisations

Trades and Labour Councils. Delegate organisations, usually known as Trades Hall Councils or Labour Councils and consisting of representatives of a number of trade unions have been established in the capital cities and in a number of other centres in each State. In the centres where these councils exist most unions or local branches operating in the district are affiliated. The district councils obtain their finance by means of a *per capita* tax on members of affiliated unions. In States other than Western Australia the district councils are generally independent bodies, although provision usually exists in the rules of the central council in the capital city for the organisation of district councils, or for their representation on the central council. In Western Australia there was until 1962 a unified system or organisation with a central council and district councils within the framework of the Australian Labor Party. In 1962 this organisation was abolished and a separate Trades and Labour Council, with provincial councils, was to be established outside the political organisation. At the end of 1963 only the central council (the Trades and Labour Council of Western Australia) was operating, but a number of provincial councils were established from 1964.

The following table shows, for each State and Territory, the number of trades and labour councils and the number of affiliated unions or branches of unions at the end of 1966. The figures for the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

CENTRAL LABOUR ORGANISATIONS: NUMBER, AND UNIONS AND BRANCH UNIONS AFFILIATED, STATES AND TERRITORIES, 1966

	N.S.W	Vic.	Qld	S.A.	W.A. (*a*)	Tas.	N.T.	A.C.T.	Total
Number of councils . .	11	9	13	5	4	5	..	1	48
Number of unions and branch unions affiliated .	351	275	176	150	145	140	..	20	1,257

(*a*) *See* explanation in text above.

As well as trades and labour councils there are councils organised on trade lines and composed of delegates from separate unions whose members' interests are closely connected by reason of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the metal trades, or with the building trades, are examples of such organisations.

Australian Council of Trade Unions. A central labour organisation, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May 1927. The A.C.T.U. consists of affiliated unions and affiliated Metropolitan and/or State Labour Councils and Provincial Councils. The Metropolitan or State Labour Council in each State is the State Branch of the A.C.T.U. and it has the right to appoint one representative to act on the executive of the Council. In addition to the representatives of the State Branches of the A.C.T.U., six delegates are elected by and from Congress, one from each of the following industry groups: Building, Food and distributive services, Manufacturing, Metal, Services, and Transport. To this executive are added the four officers, namely, President, two Vice-Presidents, and Secretary, who are elected by and from the Australian Congress of Trade Unions.

The ordinary meetings of Congress are held in alternate years. The 1965 Biennial Congress was held in September 1965, and was attended by 573 delegates from affiliated organisations, State branches of the A.C.T.U., and provincial councils. Special meetings of Congress are held whenever deemed advisable by decision of the executive, as approved by the majority of its branches, or by resolution of unions representing one-third of the total membership of the A.C.T.U.

The objectives of the A.C.T.U. are the socialisation of industry, i.e. production, distribution and exchange, and the utilisation of the resources of Australia for the benefit of the people—ensuring full employment, with rising standards of living, real security, and full cultural opportunities for all. The methods to be adopted are: the closer organisation of the workers by the transformation of the Australian trade union movement from the craft to an industrial basis, by grouping of unions in their respective industries and by the establishment of one union in each industry; the consolidation of the Australian labour movement with the object of unified control, administration, and action; the centralised control of industrial disputes, educational propaganda among unions; and political action to secure satisfactory working-class legislation.

The A.C.T.U. was the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the trade union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the annual International Labour Conference. All the major unions are affiliated with the A.C.T.U.

International Labour Organisation

The International Labour Organisation (I.L.O.) was established on 11 April 1919 as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII. of the Treaty of Versailles and formed part of other treaties of peace. During the years between its establishment and the outbreak of the 1939–45 War the I.L.O., with headquarters at Geneva, played a leading role in promoting the improvement of labour conditions throughout the world.

In 1940, in order to ensure that the I.L.O. should be able to continue to function freely, a working centre was established at Montreal, Canada. In 1946 the Organisation became the first of the specialised agencies of the United Nations. Under the terms of agreement the United Nations recognises the I.L.O. as a specialised agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organisations, social security and other aspects of social policy. The Organisation has three basic parts. These are the International Labour Conference, its highest authority, which as a rule meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the secretariat of the Organisation. The Conference is composed of delegations from the Member States of the Organisation. At the end of 1965 there were 115 Member States, each of which is entitled to be represented by four delegates—two government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty-four governments and twelve employers' and twelve workers' representatives. Of the twenty-four government representatives, ten are from the ten countries of major industrial importance and fourteen are elected by the remaining governments. These latter fourteen government representatives and the twelve employers' and twelve workers' titular delegates and the deputy members of the three groups are elected by their groups at the Conference every three years. Particulars are given in *Labour Report* No. 51 of the proceedings of International Labour Conferences up to the 47th Session, held in Geneva in June 1964. For details of I.L.O. conventions ratified by Australia, *see Labour Report* No. 51, pages 235–6.

CHAPTER 12

OVERSEAS TRANSACTIONS

This chapter includes statistics of overseas trade, balance of payments and overseas investment by private investors, but through limitations of space the statistics are, in the main, restricted to summarised form. For detailed information *see* the annual bulletins on Overseas Investment, *Overseas Trade* (preliminary and final), *Australian Exports*, and *Imports Cleared for Home Consumption* and the half-yearly bulletin *The Balance of Payments*. Preliminary information is available in summary form in the statements *Balance of Payments: Quarterly Summary; Overseas Investment: Preliminary Estimates* (annual); *Australian Overseas Trade: Total Recorded Overseas Trade* (monthly); and *Overseas Trade: Imports by Commodity Divisions* (monthly). Current information is included in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and in more detail in the *Monthly Bulletin of Overseas Trade Statistics*. There are also the following additional mimeographed statements: *Exports of Wool* (monthly), *Overseas Trade with Major Groups of Countries* (quarterly), and *Trade of Australia with Eastern Countries* (annually). Additional unpublished details of imports and exports can be supplied on request.

A subscription service is available from this Bureau to provide for the detailed requirements of individual users of overseas trade statistics. These special periodical returns are obtainable monthly or quarterly and show trade according to items of the Australian Export and Import Commodity Classifications or statistical key code dissections of Australian Customs Tariff items.

OVERSEAS TRADE

Constitutional provisions and legislation

Constitutional provisions

By the Commonwealth of Australia Constitution Act, section 51 (I), the power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament. Under section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution (*see* pp. 17–18).

Commonwealth legislation

Commonwealth legislation affecting overseas trade includes: the Customs Act, the Customs Tariff and the Customs Tariff (Dumping and Subsidies) Act. The Customs Act is the administrative Act under which the Department of Customs and Excise operates. The Customs Tariff provides the statutory authority for imposing the actual rates of duty operative from time to time, while the Customs Tariff (Dumping and Subsidies) Act provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first Commonwealth Customs Tariff was introduced by Resolution on 8 October 1901, from which date uniform duties came into effect throughout Australia. The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to certain imports from countries of the Commonwealth. Duties are imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy.

The present tariff provides for general and preferential rates of duty, and its structure is based on the 'Brussels Nomenclature' which has its origins in the Convention on Nomenclature for the Classification of Goods in Customs Tariffs, signed in Brussels on 15 December 1950. Australia has operated a 'Brussels-type' tariff since 1 July 1965.

Preferential rates. Preferential rates apply to goods the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand, Papua, and New Guinea, and certain goods the produce or manufacture of specified countries, provided that such goods comply with the laws in force at the time affecting the grant of preference.

The following are the rules of origin for preference purposes.

'151.—(1.) For the purposes of this Act and the *Customs Tariff* 1966 (other than section twenty of the last-mentioned Act), goods shall be treated as the produce of a country if they are unmanufactured raw products of the country.

(2.) For the purposes of this Act and the *Customs Tariff* 1966 (other than section twenty or a direction under section twenty-two of the last-mentioned Act), goods shall be treated as the manufacture of a country—

(*a*) if the goods were wholly manufactured in the country from materials of one or more of the following classes:—

(i) unmanufactured raw products;

(ii) materials wholly manufactured in the country or in Australia, or in the country and in Australia; and

(iii) imported materials that the Minister has, in relation to the country, determined, by notice published in the *Gazette*, to be manufactured raw materials; or

(*b*) if the goods were partly manufactured in the country, the process last performed in the manufacture of the goods was performed in the country and—

(i) not less than three-quarters, or, in a case where the country is New Zealand, one-half, of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia;

(ii) in a case where the goods are goods of a class or kind not commercially manufactured in Australia, not less than one-quarter of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia; or

(iii) in a case where the country is New Zealand, not less than three-quarters of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of New Zealand and the United Kingdom or of New Zealand, Australia and the United Kingdom.

'151A.—(1.) For the purposes of this Act and the *Customs Tariff* 1966 (other than section twenty or a direction under section twenty-two of the last-mentioned Act), goods shall not be treated as the produce or manufacture of the United Kingdom, Canada, New Zealand, Ireland, Malawi, Southern Rhodesia, Zambia, the Territory of Papua or the Territory of New Guinea unless they have been shipped from that country to Australia and, except where the Collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(2.) The last preceding sub-section does not apply—

(*a*) to goods the produce or manufacture of a country other than New Zealand that are imported into Australia from New Zealand; or

(*b*) to goods the produce or manufacture of a country other than the Territory of Papua or the Territory of New Guinea that are imported into Australia from the Territory of Papua or the Territory of New Guinea.

(3) For the purposes of a direction under section twenty-two of the Customs Tariff 1966 goods shall not be treated as the produce or manufacture of a country unless they have been shipped from that country to Australia and, except where the collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(4) For the purposes of this section—

(*a*) goods may be treated as having been shipped from the Territory of Papua or the Territory of New Guinea if they have been shipped from either of those territories; and

(*b*) goods may be treated as having been shipped from Malawi, Southern Rhodesia or Zambia if they have been shipped from any of those countries or from Lourenco Marques or Beira in Mozambique.'

General rates. General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

By-law provisions. Customs By-laws and Ministerial Determinations are instruments made by the Minister for Customs and Excise under the authority of sections 271 to 273D of the Customs Act by which goods may be admitted free of duty or at rates of duty lower than those normally applicable. By-laws and determinations may only be made under a by-law classification, which is a tariff classification containing the words 'as prescribed by by-law'. Such a classification sets out the by-law duty rates which will apply to goods only when such goods are included in a by-law or determination made under that classification. By-law admission of goods is in general guided by the use to which the goods are to be put, e.g. the goods must be for a use which will assist economic or industrial development. A prerequisite for by-law admission is that suitably equivalent goods be not reasonably available from Australian production. A by-law covers goods by general description with no limit on quantity, and may be used by any importer of the goods. A determination covers a specific quantity of particular goods, and may be used only by the importer mentioned in the determination.

Primage duties. In addition to the ordinary duties of customs imposed by the Customs Tariff, *ad valorem* primage duties at rates of five per cent or ten per cent are charged on some goods according to the types of goods and origin thereof. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos (Keeling) Islands, Christmas Island, Papua, and New Guinea are exempt from primage duty.

Anti-dumping duties. The *Customs Tariff* (*Dumping and Subsidies*) *Act* 1961–1965 provides protection for Australian industry against various forms of unfair trading. Under this Act dumping duty may be imposed on goods that are sold to Australian importers at a price which is less than the normal value of the goods, where this causes or threatens material injury to an Australian industry. 'Normal value' under the Act means:

(*a*) fair market value in the country of export;
(*b*) price in the country of export to a third country;
(*c*) fair market value in a third country; or
(*d*) cost of production, plus f.o.b. charges, plus selling costs and profit.

Countervailing duty may be levied on goods in respect of which any subsidy, bounty, reduction or remission of freight, or other financial assistance has been, or is being, paid or granted directly or indirectly upon the production, manufacture, carriage or export of those goods. The amount of the countervailing duty in respect of any goods is a sum equal to the amount of the subsidy, bounty, reduction or remission of freight or other financial assistance.

Import controls—Customs (Import Licensing) Regulations

A comprehensive system of import licensing was introduced in Australia at the beginning of the second World War under the authority of the Customs (Import Licensing) Regulations. Following the gradual relaxation of the restrictions from the end of the War, import licensing was reimposed on 8 March 1952 and continued in force until 18 October 1962. From that date restrictions were removed from all commodities with the exception of some goods retained under control for reasons associated with the protection of Australian industry. Further information on import controls is contained in Year Book No. 51, page 492.

Export controls and incentives

Commodity control. Section 112 of the Customs Act provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia, and that this power may be exercised by: (*a*) prohibiting the exportation of goods absolutely; (*b*) prohibiting the exportation of goods to a specified place; and (*c*) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

Exchange control—Banking Act 1959–1966. As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III. of the Banking (Foreign Exchange) Regulations, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV. of the Banking Act to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations, and may be subject to such further terms and conditions as are determined, or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds $A250, or where jewellery and other articles of high intrinsic worth either exceed $A2,000 in value or have not been the personal property of the passenger for at least twelve months.

Export incentives. The Commonwealth Government provides taxation concessions as financial incentives to export. A special income tax allowance for export market development expenditure is designed to encourage firms to incur promotion expenditure in advance of export sales and to assist exporters and potential exporters to expand sales in the existing markets and to enter new overseas markets. The allowance is in the form of a special deduction equal and additional to the ordinary deduction allowable in respect of specified expenses allowable in determining taxable income. Rebates of pay-roll tax are also granted to employers whose export sales of goods or property rights have increased above their average annual level in a base period. The rebate is available in the first place to employers who are producers for export, but a producer for export may issue an export certificate to an employer who has supplied components embodied in the final product.

Trade descriptions

The Commerce (*Trade Descriptions*) *Act* 1905–1966 gives power to require the application of a proper trade description to certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

Government authorities

Tariff Board

The *Tariff Board Act* 1921–1966 provides for the appointment of a Tariff Board consisting of eight members. Of these, two must, and three may, be members of the Commonwealth Public Service at the time of their appointment (or first appointments in the case of re-appointments). Members of the Board are appointed for terms of not less than one year and not more than five years. The purpose of the Tariff Board is to advise the Government on matters relating to the protection and encouragement of Australian industry.

The Minister of State for Trade and Industry is required to refer to the Board for inquiry and report the following matters: the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods by charging unnecessarily high prices for his goods or acting in restraint of trade. In addition, the Minister may refer the following matters to the Tariff Board for inquiry and report: the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and other matters affecting the encouragement of primary and secondary industries in relation to the Tariff. The Minister of State for Customs and Excise may refer to the Tariff Board for inquiry and report the following matters: the classification of goods in the Customs Tariff or Excise Tariff and matters in connection with the interpretation of these Tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff* (*Dumping and Subsidies*) *Act* 1961–1965.

Where a matter of the necessity for new or increased duties on any goods has been referred to the Board for inquiry and report, the Board may, in its report, recommend the restriction of the importation of those goods for such period as is specified in the report.

Inquiries conducted by the Board relating to a revision of the Tariff, a proposal for a bounty, a question under the Customs Tariff (Dumping and Subsidies) Act, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods, are held in public, and evidence in such inquiries is taken in public on oath, unless the Board accepts evidence as confidential or in the form of a written statement by a witness on oath. The Board is required to make available to the public the contents of any such written statement except any matter which it accepts as confidential.

Special Advisory Authority

The Minister for Trade and Industry may also request a Special Advisory Authority to inquire into cases where urgent action appears necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Tariff Board. The Special Advisory Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by a Special Advisory Authority may be imposed, but may only operate for a period of up to three months after the date of receipt of the final report by the Tariff Board on the goods concerned.

Trade agreements

Multilateral—General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (G.A.T.T.), which came into force on 1 January 1948, is a multilateral trade treaty designed to facilitate trading relations between participating countries by reducing tariff and other barriers to the free interchange of goods. The Agreement provides a framework within which negotiations can be held to reduce barriers to trade, and a structure for embodying the results of such negotiations in a legal instrument. Features of the Agreement are the schedules of tariff concessions participating countries have negotiated with each other, the application of most-favoured-nation treatment among the participants, the avoidance of trade discrimination, and a code of agreed commercial policy rules for international trading. Each participating country retains the right (*a*) to impose new duties for protective purposes, except in respect of commodities where rates of duty have been fixed in negotiations under the Agreement; (*b*) to impose import restrictions to protect the balance of payments; and (*c*) to take emergency action where any industry is endangered by reason of any obligation incurred under the Agreement.

There have been five main tariff negotiations under the provisions of the Agreement, and a number of smaller scale negotiations preceding the accession of individual countries. As a result the tariff rates for many items entering into world commerce have been reduced or bound against increase. Australia has obtained tariff concessions from individual countries on a number of her principal or potential exports to them, as a result both of direct negotiation by Australia and of negotiation by other countries. In the latter case the benefits occurred through the operation under the Agreement of the most-favoured-nation principle. A sixth series of tariff negotiations, the Kennedy Round, based on a plan for linear tariff cuts on all classes of products, including agricultural and primary products with a minimum of exceptions, and on the reduction of non-tariff barriers to trade, began in May 1964.

Increasing attention has been focussed in G.A.T.T. on specific trade and development problems of developing countries, and in February 1965 a new Part IV of G.A.T.T., aimed at helping developing countries solve these problems, came into force on a *de facto* basis. The new Part IV, which received legal recognition on 27 June 1966, gives a contractual and legal basis for commitments on individual and joint action by contracting parties, aimed at ensuring that the less-developed countries can increasingly find the means to raise standards of living and promote rapid economic development through participating in international trade and sustained growth of their export earnings.

Up to the end of January 1967 the contracting parties had held twenty-three sessions, nearly all in Geneva, to deal with matters arising from the administration of the Agreement. As a general rule the contracting parties meet once a year, although in a few instances they have met twice. In 1960 a Council of Representatives was established to undertake work, both of an urgent and of a routine character, between the regular sessions of the contracting parties. Some of the provisions of the Agreement were revised in 1954 and 1955. The revised Agreement contains tighter provisions on non-tariff barriers to trade, and allows more freedom for countries to revise individual tariff items which had been bound against an increase in tariff negotiations under the Agreement.

Since G.A.T.T. has not been accepted definitively by any country, the Agreement is at present being applied pursuant to a Protocol of Provisional Application. At the end of January 1967 seventy countries, whose foreign trade represents about eighty per cent of the total volume of world trade, were full contracting parties to the Agreement, four had acceded provisionally, eight applied the Agreement on a *de facto* basis, and two participated under special arrangements.

Bilateral agreements

The United Kingdom. The original United Kingdom and Australia Trade Agreement (Ottawa Agreement) was signed on 20 August 1932. The provisions and history of the agreement were published in Year Book No. 43, page 329. A new Trade Agreement designed to replace the original agreement and correct the imbalance in benefits which had emerged in the twenty-five years of its operation came into effect on 9 November 1956. Briefly this agreement preserves security for Australian exports in the United Kingdom market, but lowers the obligatory margins of preference which Australia extends to the United Kingdom. The agreement provides for re-negotiation after the initial five-year period, but by arrangement between the two Governments this re-negotiation has been postponed. In the meantime the agreement continues subject to six months notice of termination by either country. Further details for the 1956 Agreement may be obtained from Year Book No. 51, page 495.

Canada. The existing agreement between Australia and Canada came into force on 30 June 1960, replacing an agreement signed on 3 August 1931. The agreement provides for Australian goods to receive British Preferential Tariff rates, or better, upon entry into Canada, and for Canada to maintain margins of preference in favour of Australia on a range of commodities. The agreement specifies that Canadian goods, with some exceptions, shall receive the benefit of the British Preferential Tariff upon importation into Australia and that Australia shall maintain margins of preference in favour of Canada on a range of commodities. The agreement continues subject to six months notice.

New Zealand. The New Zealand-Australia Free Trade Agreement came into force on 1 January 1966. The agreement provides for free trade in certain scheduled goods. Provision is made for the addition of items to the schedule. The provision of the 1933 Trade Agreement between Australia and New Zealand continues in force as part of the Free Trade Agreement, except as superseded or modified by it.

Federation of Rhodesia and Nyasaland. A trade agreement was negotiated with the Federation in June 1955. (Australia's principal undertaking was to grant an exclusive tariff preference to the Federation on unmanufactured tobacco. The Federation accorded preferential tariff treatment on a wide range of Australian goods, including wheat and powdered and condensed milk.) The Federation was dissolved on 31 December 1963, but application of the Agreement was continued on a provisional basis between Australia and each of the three constituent territories Zambia (Northern Rhodesia), Rhodesia (Southern Rhodesia) and Malawi (Nyasaland). Zambia terminated the Trade Agreement with Australia on 30 June 1966 and following the unilateral declaration of independence by the Rhodesian Government in November 1965 tariff preferences to Rhodesia were suspended. The re-negotiation of the Trade Agreement with Malawi is at present under consideration.

Malaysia. A trade agreement with the then Federation of Malaya became effective in August 1958. Under the agreement Malaya undertook to protect Australian wheat and flour from dumped or subsidised competition and to extend to Australia any tariff preferences it accords. Australia guaranteed free entry for natural rubber so long as the Papua-New Guinea crop was absorbed, and assured the Federation that natural rubber would not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment. The Agreement continues to apply between Australia and that portion of Malaysia known previously as the Federation of Malaya.

Japan. An Agreement on Commerce between the Commonwealth of Australia and Japan was signed on 6 July 1957, and formally ratified on 4 December 1957. It was provided that the Agreement would remain in force until 5 July 1960, and thereafter unless prior notice of termination should be given by either Government. The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges, and import and export licensing. Japan is not entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories. Japan also gave certain specific commitments on some important Australian export commodities.

Following a review of the agreement, a Protocol of Amendment was signed on 5 August 1963 and formally ratified on 27 May 1964. Under the Protocol Australia agreed to withdraw action against Japan under Article XXXV of the General Agreement on Tariffs and Trade, and thus a full G.A.T.T. relationship was established between the two countries.

The specific undertakings agreed in 1957 have now lapsed and the following commitments have been entered into.

Japan has:

(*a*) undertaken not to accord less favourable import treatment (apart from tariff) for raw wool than for raw cotton,

(*b*) stated that it has no present intention of imposing a duty on wool,

(*c*) undertaken to continue imports of Australian soft wheat at a stabilised level, and to purchase Australian hard wheat when necessary requirements are met,*

(*d*) stated that it will endeavour to expand opportunities for imports into Japan of Australian sugar, canned meat, leather, motor vehicles, butter, and cheese.

Australia has:

(*a*) undertaken to consult Japan on temporary protection cases affecting Japanese products (in such consultations Japan will consider whether the need for temporary protection can be obviated by measures taken in Japan),

(*b*) stated that equal opportunities of fair and equal competition are accorded to Japanese products in Australian Government purchases overseas.

The new agreement will be effective for three years from the date of ratification and thereafter subject to three months' notice of termination by either Government. There is provision for consultations to take place at least annually.

Indonesia. This agreement came into operation on 1 July 1959. It records the desirability of expanding trade between Australia and Indonesia. It also gives special recognition to the importance of the flour trade from Australia to Indonesia. Australia recognises the importance to Indonesia of its traditional exports to Australia. The agreement is subject to review and renewal annually.

Philippines. A trade agreement with the Philippines was signed in Manila on 16 June 1965. The agreement provides for an exchange of non-discriminatory treatment† while recognising existing preferences. The agreement is to operate for one year initially and continue thereafter unless one Government gives ninety days notice of its intention to terminate it. The Philippines is not a member of G.A.T.T.

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* 'Soft' wheat is fair average quality wheat; 'hard' wheat is premium grade wheat similar to that grown in North America.

† An agreement, with reservations, not to discriminate against each other with tariff or non-tariff barriers.

U.S.S.R. A trade agreement between Australia and the U.S.S.R. was signed in Moscow on 15 October 1965. The agreement provides for the exchange of non-discriminatory treatment between the two countries while recognising existing preferences. It operates initally for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Korea. On 21 September 1965 a trade agreement was signed in Seoul between Australia and South Korea. Basically the agreement provides for an exchange of non-discriminatory treatment with allowances for existing preferences. The agreement, to run for one year with provision for automatic extension, also provides for non-discrimination by State trading enterprises. Both Governments undertake to use their best endeavours to increase the volume of trade between the two countries. The importance of the agreement for Australia is that our trade is now guaranteed continued non-discriminatory treatment whereas this was formerly given on a non-contractual basis. Korea is not a member of G.A.T.T.

Poland. A trade agreement between Australia and Poland was signed in Warsaw on 20 June 1966. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Bulgaria. A trade agreement between Australia and Bulgaria was signed in Sofia on 22 June 1966. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Trade services

Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. A brief account of the establishment and growth of the Trade Commissioner Service before the Second World War is available in Year Book No. 51, page 496. Since the War the service has increased steadily and by December 1966 there were over 100 Trade Commissioners and Assistant Trade Commissioners in forty-three posts in thirty-two countries. In 1957 Australia's official commercial representation overseas was extended by the introduction of a system of government Trade Correspondents. These correspondents, who as a rule already reside in particular centres overseas, are engaged on a part-time basis to carry out market research, arrange introductions between buyer and seller, and generally promote Australia's trade interests in the same way as Trade Commissioners. Each Trade Correspondent operates under the general direction of the nearest Trade Commissioner.

Trade Commissioners and, to a lesser extent, Trade Correspondents, are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organisations include: surveys of market prospects; advice on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advice and assistance to business visitors; helping to organise and carry through trade missions, trade displays, newspaper supplements, and other promotion and publicity media; providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods; helping to attract desirable investment.

In some countries Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission he is called upon to act as the Australian representative.

Trade Commissioners usually enter the Service from either private enterprise or the public service, and applications for entry into the Service are called for periodically by public advertisement. In the more important posts the Trade Commissioner is supported by an Assistant Trade Commissioner, who normally qualifies at a later stage for appointment as a Trade Commissioner.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade and Industry (as distinct from the diplomatic and consular services administered by the Department of External Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Commercial Counsellor, Commercial Secretary or Commercial Attaché).

The overseas trade representation is shown in the chapter International Relations.

Trade Missions

Since 1954 the Australian Government has sent a number of trade missions abroad as part of the campaign to increase exports, and the experience acquired has indicated the need to vary the technique to suit particular products or markets. At present the following two trade mission techniques are in use.

Survey mission. This is organised to obtain precise knowledge about trade potential for specific products in an overseas market. This method is adopted for new or developing areas where commercial intelligence is not readily available or where a complex industry is involved and requires technical knowledge. Ten such missions have been organised to date.

Specialised selling mission. The approach is to organise a specific industry or group of industries to participate in a planned selling campaign in overseas markets with known sales potential. The group visits the market, exhibits and publicises its products and negotiates sales. Two specialised selling missions have been organised in recent years.

Surveys and selling missions have developed from the general trade missions of the past which comprised members with a wide variety of interests and objectives. In addition to the missions mentioned above, Australia since 1954 has sent overseas fifteen general trade missions and five trade ships.

Further details on trade missions are included in Year Book No. 49, page 544.

Export Payments Insurance Corporation

The *Export Payments Insurance Corporation Act* 1956 established the Corporation with the objective of protecting Australian exporters against risks of loss arising from non-payment of their overseas accounts for goods and services. The main risks of loss against which the Corporation insures are the 'commercial' risks of the insolvency or protracted default of the buyer, and 'political' risks, such as the cancellation of a valid import licence, exchange transfer difficulties, war or civil war.

The Corporation is charged to be self-supporting in its payments insurance operations, and applies principles similar to those of commercial insurers. There is, however, no overlap with normal insurance facilities, since the Corporation does not cover risks which can normally be insured with commercial insurers.

The capital of the Corporation is $4,000,000, and the statutory maximum contingent liability which it can assume under payments insurance contracts issued to exporters is at present $200,000,000.

In addition to. ts primary function as a payments insurer, the Corporation also insures, as an agent for the Commonwealth Government, Australian investments in overseas countries against 'non-commercial' risks such as expropriation, war and convertibility.

Further information on the Corporation is contained in Year Book No. 49, page 544. For particulars of its operations *see* chapter 19, Private Finance.

Collection and presentation of statistics

Basic documents

Overseas trade statistics are derived from documents obtained under the Customs Act by the Department of Customs and Excise, and compiled by the Commonwealth Bureau of Census and Statistics. These documents are duplicate copies of export and import entries submitted by exporters and importers or their agents to the Department of Customs and Excise. Certain items for which customs entries are not required are excluded from the statistics. Export entries show date and port of shipment, country of consignment and the description, quantity (where required) and value of the goods. Prior to July 1966 the statistical item number was inserted and verified by officers of the Department of Customs and Excise in Canberra. As from July 1966 the statistical item number has been inserted by the exporter or his agent and verified by officers of the Department of Customs and Excise in the local offices of the Collectors of Customs. Import entries show date and port of entry, country of origin, description of goods, quantity (where required), value of the goods, and amount of duty paid thereon. The tariff item number under which the goods are admitted and the statistical key code are inserted by the importer or his agent, and these are verified by statistical officers of the Department of Customs and Excise in the local offices of the Collectors of Customs.

Scope of the statistics

All goods moving into or out of Australia are recorded in overseas trade statistics (except those exclusions listed on page 377) and the statistics are not confined to goods which are the subject of a commercial transaction. The area to which all overseas trade statistics issued by this Bureau apply is the whole of the Commonwealth of Australia, comprising the States of New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania, the Northern Territory, and the Australian Capital Territory. Non-contiguous territories under Australian administration are treated as outside countries, and trade transactions between Australia and those non-contiguous territories are part of the overseas trade of Australia. Such transactions are shown separately, i.e. the trade of Australia with each particular area is separately recorded and tabulated.

Inclusions and exclusions

(*a*) Imports and exports on government account including defence equipment are treated as normal transactions and are an integral part of overseas trade statistics.
(*b*) Direct transit trade, i.e. goods being transhipped or moved through Australia for purposes of transport only, is not recorded.
(*c*) Outside packages (containers, crates, etc.) are included as a separate item in the tabulation of imports, but they have only been fully classified by country of origin since 1950–51. For exports, however, the value recorded for each item includes the value of the outside package.
(*d*) Bunkers and stores supplied to vessels and aircraft have been excluded from statistics of exports since 1906.
(*e*) Those migrants' and passengers' effects for which a customs entry is required are included in imports and exports.
(*f*) Those parcel post imports and exports of small value for which customs entries are not received are excluded from overseas trade statistics.
(*g*) Certain materials for intergovernmental defence projects for which customs entries are not required are excluded from imports.
(*h*) The value of ores and concentrates imported and exported includes the value of the gold content and the latter is not included in imports and exports of gold.
(*i*) Vessels and aircraft engaged in the transport of passengers or goods between Australia and other countries are excluded from imports and exports.
(*j*) Vessels and aircraft purchased for use on overseas routes are excluded from imports and any subsequent overseas sales of such vessels and aircraft from exports.
(*k*) Fish and other sea products landed abroad directly from the high seas by Australian vessels are excluded from exports.
(*l*) Exports of uranium are not recorded.

Period covered by statistics

Exports. These are recorded statistically in the month in which the export entries are passed by the Department of Customs and Excise. Normally this is within a few days of shipment although delays sometimes occur in the lodging of entries. Shipments are at times delayed by abnormal factors affecting sales, deliveries for export and the loading of ships. When such delays occur, exports during the affected period are diminished and when the delays are overtaken shipments include substantial quantities of accumulated stocks as well as current disposals. Wool shipments in any trade year may be materially affected by the time spread of wool auctions which normally end in July. The carry-over for shipments varies from year to year. New season's wheat normally becomes available for shipment from December onwards, and the quantity shipped in any trade year (ending June) depends on the size of the crop, the time spread on sales for export, and physical factors affecting the scheduling of deliveries.

Imports. Imports are recorded statistically in the month in which import entries are passed by the Department of Customs and Excise. Normally this is within a few days of discharge of cargoes.

Since July 1914, detailed trade statistics have been compiled for financial years (July to June). Prior to that details were compiled on a calendar year basis.

Valuation

Imports into Australia prior to 15 November 1947 were recorded in British currency values and full explanatory notes on the methods of recording import values before and since 15 November 1947 were included in Year Book No. 37, page 396.

All values in overseas trade statistics are determined on a 'free on board (f.o.b.) port of shipment' basis. This means that all charges, in particular the cost of freight and insurance, incurred after the goods have been exported from the port of shipment are excluded. Only transport and service charges incurred, or usually incurred, prior to export are included in the determination of trade values.

The procedure adopted to value imports and exports is as follows.

Exports. The recorded value of goods exported includes the cost of containers and outside packages and has been determined as from July 1937, as follows:

(*a*) Goods sold to overseas buyers before export are valued at the Australian f.o.b. port of shipment equivalent of the actual price at which the goods were sold.
(*b*) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent of the price paid for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale.

An account of the bases of valuation in operation prior to July 1937 is given on page 469 of Year Book No. 39.

Imports. The recorded value of goods imported is the amount on which duty is payable or would be payable if the duty were *ad valorem*. Value for duty is the f.o.b. port of shipment equivalent of either:

(*a*) the actual price paid or to be paid by the Australian importer plus any special deduction (transactions value); or

(*b*) 'the current domestic value' of the goods; whichever is the higher.

'Current domestic value' is defined as, 'the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country.'

The cost of containers and outside packages is excluded from the value of individual import items but is included as a separate item in the tabulation of imports.

Quantity data

Where quantities are shown they are generally but not invariably expressed in terms of the normal trade unit. Where 'cental' is used, the unit is equivalent to 100 lb avoirdupois. Quantities are not tabulated in respect of statistical items for which there is no appropriate unit of quantity (for example, a statistical item which covers a number of commodities that cannot be recorded under a uniform unit of quantity).

Statistical concepts of trade

Trade systems. There are two generally accepted systems of recording overseas trade statistics, namely (*a*) special trade and (*b*) general trade. The Statistical Office of the United Nations defines the two systems as follows:

> '*System of Trade.* Two systems of recording trade are in common use, differing mainly in the way warehoused and re-exported goods are recorded.
>
> (*a*) *Special Trade.* Special imports are the combined total of imports directly for domestic consumption (including transformation and repair) and withdrawals from bonded warehouses or free zones for domestic consumption. Special exports comprise exports of national merchandise, namely, goods wholly or partly produced or manufactured in the country, together with exports of nationalised goods. (Nationalised goods are goods which, having been included in special imports, are then exported without transformation).
>
> (*b*) *General Trade.* General imports are the combined total of imports directly for domestic consumption and imports into bonded warehouse or free zone. General exports are the combined total of national exports and re-exports. Re-exports, in the general trade system, consist of the outward movement of nationalised goods plus goods which, after importation move outward from bonded warehouse or free zone without having been transformed.
>
> *Direct transit trade*, i.e. goods merely being transhipped or moving through the country for purposes of transport only, is excluded from the statistics of both special and general trade.'

Statistics in this volume are compiled on the 'general trade' basis.

Australian produce (national produce) is defined as goods, materials or articles which have been produced, manufactured or partly manufactured in Australia, except goods which were originally imported and have undergone only repair or minor operations which leave them essentially unchanged.

Re-exports are defined as goods, materials or articles originally imported which are exported in the same condition in which they were imported, and goods, materials or articles originally imported which are exported after undergoing repair or minor operations which leave them essentially unchanged. Minor operations include blending, packaging, bottling, cleaning, sorting, husking, and shelling.

Recorded trade. This term is used to denote the value of exports or imports recorded during the period specified.

Merchandise and non-merchandise trade. Recorded trade is divided into merchandise and non-merchandise trade. Merchandise trade is the equivalent of recorded trade less certain items specified as non-merchandise. Prior to July 1965 non-merchandise trade consisted of imports and exports of specie and gold and silver. In July 1965 merchandise and non-merchandise trade were redefined in accordance with international standards recommended by the United Nations, and since that date non-merchandise items include commodities such as gold, legal tender, decorations, trophies, samples, passengers' personal effects, military equipment and stores for Australian Forces abroad, goods for the use of diplomatic and consular representatives, goods imported with the intention of being re-exported, goods exported with the intention of being re-imported, etc. A complete description of these commodities is contained in the Australian Export and Import Commodity Classifications published by the Bureau.

Balance of payments basis. Statistics of exports and imports for Balance of Payments purposes are derived by making certain adjustments, relating both to scope and valuation, to statistics of merchandise exports and imports. Statistics on the adjusted basis are published in statistical bulletins relating to the Balance of Payments. The adjustments include the following. Imports are adjusted for the overall excess of recorded value for duty over the actual selling price to the importer. Exports and imports of goods for repair and return and the value of repairs are deducted from merchandise trade; exports and imports of ships and aircraft for use on overseas routes, certain imports of defence equipment, and other trade items for which customs entries are not required are added. Adjustments are also made for timing differences between the change of ownership and the lodgment of import entries in the case of certain large items of equipment (e.g. warships).

The balance of trade is derived by comparing statistics of exports on a balance of payments basis with statistics of imports on that basis.

Balance of payments

Estimates of the balance of trade do not, however, measure Australia's total balance of payments which includes other transactions such as freight and insurance charges on imports, shipping expenditure in Australian ports, overseas travel, payments of profits and interest, and private and government borrowing overseas.

Country of consignment or origin

'Country of consignment' referred to in exports tables means the country to which goods were consigned at the time of export. Where the country of consignment is not determined at the time of export the goods are recorded as exported 'For orders'. 'Country of origin', referred to in import tables, means the country of production. Classification of imports according to country of shipment was discontinued after the year 1920–21. A brief account of the dual system of import classification by country, operating prior to the year 1921–22, was given on page 500 of Year Book No. 51.

Throughout this chapter, where countries are listed, they are shown in alphabetical order and the separation of Commonwealth and foreign countries as in previous Year Books has been discontinued.

Commodity classifications

Overseas trade statistics for years up to and including 1964–65 were compiled according to the Statistical Classification of Imports and Exports. From July 1965 imports have been classified according to the new Australian Import Commodity Classification. This classification is based on the Standard International Trade Classification, Revised (S.I.T.C.), which is closely related to the Brussels Tariff Nomenclature used in the new Australian Customs Tariff introduced in July 1965. In accordance with the principles of the S.I.T.C., imports of defence equipment by the Australian Services are normally classified according to the commodity imported, e.g. warships are classified under 'ships and boats'.

Although the basis of the classification of exports remained unchanged for 1965–66, the export section of the Statistical Classification of Imports and Exports was published separately, with some minor revisions, as the Australian Export Commodity Classification. A new Australian Export Commodity Classification based on S.I.T.C. was introduced in July 1966, but the latter classification, naturally, does not apply to the statistics in this Year Book.

Variation in presentation

Because of the introduction in July 1965 of a new Australian Customs Tariff and a new Australian Import Commodity Classification based on the Standard International Trade Classification, the presentation of details of imports has been varied from that in previous Year Books to conform to the new classification.

Pre-federation records

In the years preceding federation each State recorded its trade independently and in so doing did not distinguish other Australian States from external countries. The aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, but the results obtained may be subject to error, since past records of values and the direction of imports and exports were not on uniform lines. Imports and exports for years prior to federation may be found in issues of the Year Book prior to No. 41. On the introduction of the *Customs Act* 1901 the methods of recording values were made uniform throughout the States.

Total recorded overseas trade

The following table shows the total recorded trade of Australia with overseas countries from 1901 to 1965–66. The period 1901 to 1955–56 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in earlier issues, but figures for imports in issues prior to No. 37 were expressed in British currency.

VALUE OF TOTAL RECORDED OVERSEAS TRADE: AUSTRALIA, 1901 TO 1965–66

($ f.o.b.)

Period	Imports	Exports	Total	Excess of exports (+) or imports (−)	Value per head of population		
					Imports	Exports	Total
	$m	$m	$m	$m	$	$	$
Annual average—							
1901 to 1905 .	71	102	174	+ 31	18.2	26.2	44.4
1906 to 1910 .	94	(a)139	232	+ 45	22.0	32.6	54.6
1911 to 1915–16 .	133	149	282	+ 16	27.6	30.8	58.4
1916–17 to 1920–21	183	230	413	+ 47	34.8	43.8	78.6
1921–22 to 1925–26	249	269	518	+ 20	42.2	45.8	88.0
1926–27 to 1930–31	239	263	501	+ 24	37.2	41.0	78.2
1931–32 to 1935–36	148	242	390	+ 94	22.2	36.2	58.4
1936–37 to 1940–41	247	315	562	+ 68	35.6	45.4	81.0
1941–42 to 1945–46	423	328	751	− 95	58.2	44.8	103.0
1946–47 to 1950–51	899	1,143	2,041	+244	114.4	145.4	259.8
1951–52 to 1955–56	1,566	1,572	3,138	+ 7	175.6	176.4	352.0
Year—							
1956–57 . .	1,438	1,986	3,424	+548	150.8	208.3	359.1
1957–58 . .	1,584	1,636	3,220	+ 52	162.6	167.9	330.5
1958–59 . .	1,593	1,623	3,216	+ 30	160.1	163.1	323.2
1959–60 . .	1,854	1,875	3,730	+ 21	182.4	184.5	366.9
1960–61 . .	2,175	1,938	4,113	−237	209.3	186.5	395.8
1961–62 . .	1,769	2,155	3,924	+385	166.9	203.2	370.1
1962–63 . .	2,163	2,152	4,314	− 11	200.2	199.2	399.4
1963–64 . .	2,373	2,782	5,155	+410	215.5	252.7	468.2
1964–65 . .	2,905	2,651	5,556	−253	258.7	236.1	494.8
1965–66 . .	2,939	2,721	5,660	−218	256.8	237.7	494.5

(a) Prior to 1906, ships' stores were included in exports. For the value of such goods shipped on overseas vessels and aircraft during each of the years 1963–64 to 1965–66 *see* page 405.

Plate 26 opposite shows the overseas trade of Australia from 1946–47 to 1965–66.

The following table shows particulars of total merchandise and non-merchandise trade for each of the years 1961–62 to 1965–66.

VALUE OF TOTAL MERCHANDISE AND NON-MERCHANDISE TRADE: AUSTRALIA, 1961–62 TO 1965–66

($'000 f.o.b.)

IMPORTS

Year	Merchandise	Non-merchandise	Total recorded imports
1961–62. .	1,738,896	30,596	1,769,492
1962–63. .	2,128,311	34,359	2,162,670
1963–64. .	2,329,576	43,082	2,372,658
1964–65. .	2,841,326	63,377	2,904,703
1965–66. .	2,898,280	41,212	2,939,492

OVERSEAS TRADE

AUSTRALIA, 1946-47 TO 1965-66

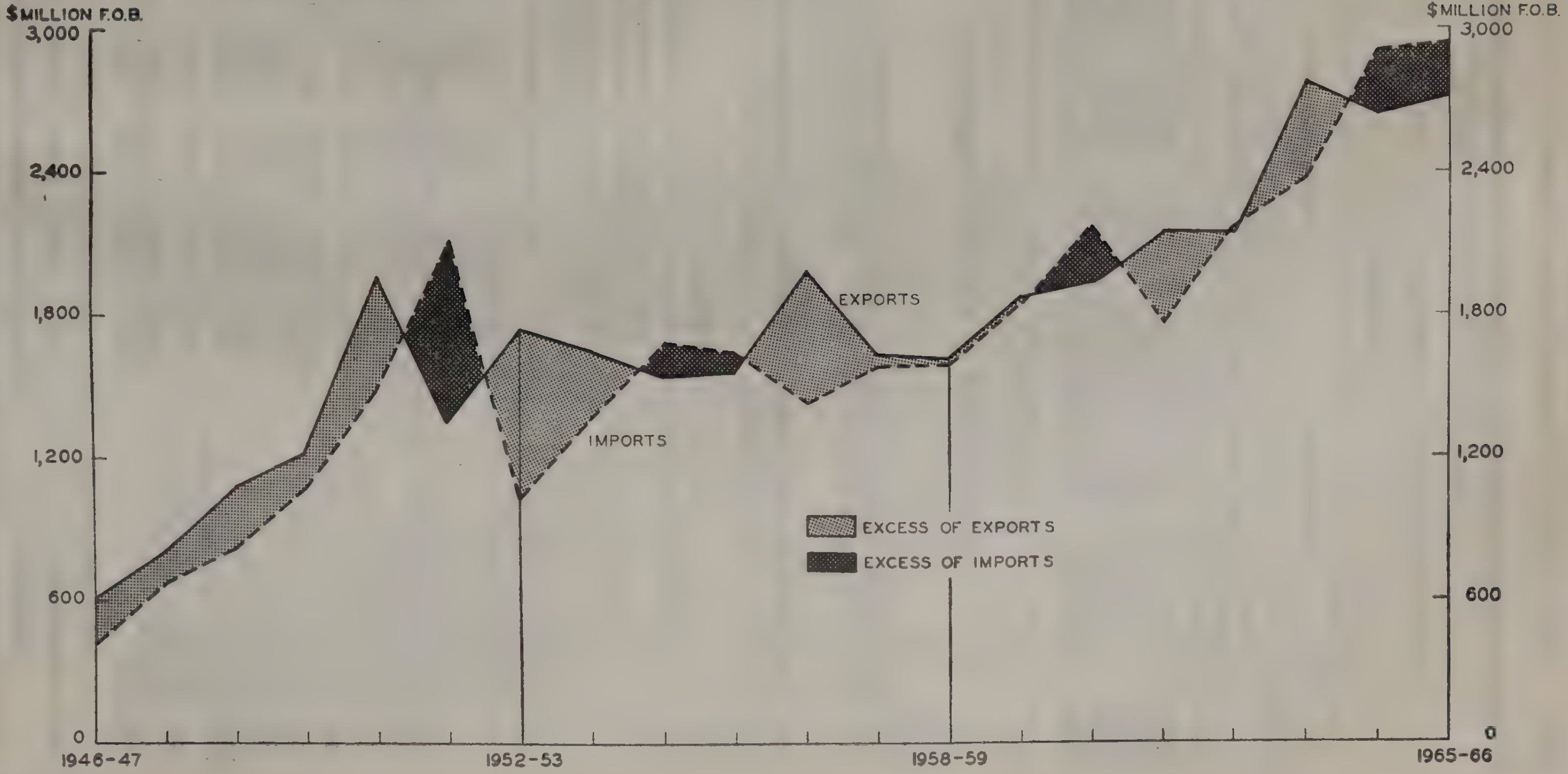


PLATE 26

VALUE OF TOTAL MERCHANDISE AND NON-MERCHANDISE TRADE AUSTRALIA, 1961–62 TO 1965–66—*continued*

($'000 f.o.b.)

EXPORTS

Year	Merchandise			Non-merchandise			Total recorded exports
	Australian produce	Re-exports	Total	Australian produce	Re-exports	Total	
1961–62 .	2,070,943	29,352	2,100,295	30,505	23,768	54,273	2,154,568
1962–63 .	2,076,739	25,628	2,102,367	29,080	20,365	49,445	2,151,812
1963–64 .	2,691,345	34,301	2,725,646	35,569	21,245	56,814	2,782,460
1964–65 .	2,535,930	43,238	2,579,168	45,983	26,298	72,281	2,651,449
1965–66 .	2,578,184	55,348	2,633,532	59,913	27,508	87,421	2,720,953

Classified summary of Australian overseas trade

Exports

The following table shows for Australia (i) exports of Australian produce and (ii) recorded exports according to statistical classes for each of the years 1963–64 to 1965–66.

VALUE OF EXPORTS OF AUSTRALIAN PRODUCE AND RECORDED EXPORTS BY STATISTICAL CLASS, 1963–64 TO 1965–66

($'000 f.o.b.)

Class	Australian produce			Total recorded exports(*a*)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
I. Foodstuffs of animal origin, etc. .	362,592	427,189	418,962	362,764	427,312	419,287
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc. . .	723,916	603,585	551,761	725,046	604,826	553,086
III. Alcoholic liquors, etc. . .	5,422	6,037	6,168	5,536	6,245	6,463
IV. Tobacco, etc.	1,522	1,625	1,443	1,780	1,925	2,003
V. Live animals and birds . .	4,601	3,949	4,562	4,817	4,199	4,810
VI. Animal substances, etc. . .	1,054,969	888,860	876,620	1,055,615	889,432	877,329
VII. Vegetable substances, etc. . .	3,681	3,952	3,672	3,861	4,086	4,017
VIII. Apparel, textiles, etc. . . .	13,202	13,668	15,303	14,666	15,517	17,121
IX. Oils, fats and waxes . . .	54.105	41,731	33,711	57,969	43,456	34,395
X. Pigments, paints and varnishes .	2,519	2,713	5,186	2,661	2 837	5,361
XI. Rocks, minerals, etc. . . .	92,985	136,345	161,449	93,105	137,799	161,741
XII. Metals, metal manufactures and machinery	265,779	289,923	366,562	280,541	307,358	398,397
XIII. Rubber and leather, etc. . .	10,554	11,214	12,476	10,780	11,580	12,946
XIV. Wood and wicker, etc. . .	5,838	5,252	4,559	6,166	5,655	4,813
XV. Earthenware, etc. . . .	3,154	3.500	4,117	3,390	3,649	4,292
XVI. Paper and stationery . . .	11,720	13,462	12,752	12,986	14,546	14,136
XVII. Jewellery, etc.	9,901	10,057	13,479	10,641	11,051	14,616
XVIII. Optical, surgical and scientific instruments	5,791	7,857	8,528	7,373	9,332	10,205
XIX. Chemicals, medicinal products, essential oils, fertilisers . .	24,969	30,497	39,112	26.617	34,217	42,301
XX. Miscellaneous	28,843	32,793	37,288	34,050	42,420	45,735
XXI. Silver	5,281	1,722	476	5,281	1,727	476
Total merchandise exports .	*2,691,345*	*2,535,930*	*2,578,184*	*2,725,646*	*2,579,168*	*2,633,532*
XXII. Non-merchandise . . .	35,569	45,983	59,913	56,814	72,281	87,421
Total exports . . .	2,726,914	2,581,913	2,638,097	2,782,460	2,651,449	2,720,953

(*a*) Australian produce plus re-exports.

The following table shows the quantities and values of the principal articles of Australian produce exported during each of the years 1963–64 to 1965–66.

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE 1963–64 TO 1965–66

Article	Quantity			Value ($A'000 f.o.b.)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Butter . . . . tons	87,751	90,286	74,832	54,714	62,165	49,989
Cheese . . . . „	27,827	27,201	24,900	13,518	14,197	13,470
Chemicals, drugs, fertilisers . . .	..	..	..	24,968	30,497	39,112
Coal . . . . tons	3,805,747	6,051,157	7,654,098	32,462	51.120	63,132
Copper and copper-base alloys . „	50,475	17,759	62,015	27,510	11,240	60,575
Fish	..	..	..	14,320	18,137	24,421
Fruit—						
Dried . . . . . . tons	66,748	73,933	85,679	21,046	24,100	28,439
Fresh, including frozen . '000 bus.	10,953	9,853	11,769	33,156	30,543	37,819
Preserved in airtight containers . tons	126,786	102,003	138,082	34,236	27,584	37,763
Gold	..	..	..	14,289	18,404	24,418
Grains and cereals—						
Barley . . . . . . tons	396,335	363,407	223,089	18,298	18,002	11,508
Flour (wheaten), plain white tons(*a*)	684,628	572,114	390,729	42,238	37,334	24,753
Wheat . . . . . . tons	6,796,194	5,624,462	5,075,344	362,018	297,199	264,062
Other	..	..	..	34,692	39,324	35,448
Hides and skins	..	..	..	91.180	79,534	88,501
Iron and steel	..	..	..	66,556	61,678	72,374
Lead, bullion . . . . . tons	83,332	58,221	89,122	17,578	18,427	25,918
Lead, pig . . . . . . „	169,035	152,211	159,810	30,572	42,005	40,333
Lead and silver-lead ores and concentrates '000 cwt	2,370	2,039	2,365	15,517	19,236	21,337
Machines and machinery (other than dynamo electrical)	..	..	..	35,008	42,373	43,098
Meats preserved by cold process—						
Beef and veal . . . . . tons	281,286	316,030	273,487	176,522	200,363	195,477
Lamb . . . . . . „	18,574	24,166	15,881	7,718	10,832	8,176
Mutton . . . . . . „	66,927	72,766	78,761	24,752	29,517	37,242
Other	..	..	..	15,006	19,934	20,764
Meats, tinned	23,973	26,978	24,838	12,588	15,797	14,588
Milk and cream . . . . '000 lb	142,236	172,878	126,492	19,700	25,127	19,264
Ores and concentrates . . . . tons	1,136,114	1,330,716	1,751,701	56,334	78,458	90,990
Petroleum and shale oils	..	..	..	38,624	22,273	19,737
Sugar (from cane) . . . . . tons	1,116,190	1,269,139	1,252,575	156,512	112,682	93,926
Titanium and zirconium ores and concentrates . . . . . '000 cwt	11,254	14,611	16,892	17,668	25,864	29,084
Wool . . . . . . '000 lb	1,508,242	1,452,153	1,445,535	960,880	805,850	784,844
Zinc, bars, blocks, sheets, etc. '000 cwt	1,712	1,740	2,004	18.236	25,177	27,379
Zinc, ores and concentrates . „	4,552	4,061	4,899	11,227	15,260	16,854
All other articles	..	..	..	227,270	251,677	273,303
Total	..	..	..	2,726,914	2,581,913	2,638,097

(*a*) 2,000 lb.

Plate 27 on the following page shows exports in principal commodity groups in each of the years 1955–56 to 1965–66.

EXPORTS OF PRINCIPAL COMMODITIES

AUSTRALIA, 1955-56 TO 1965-66

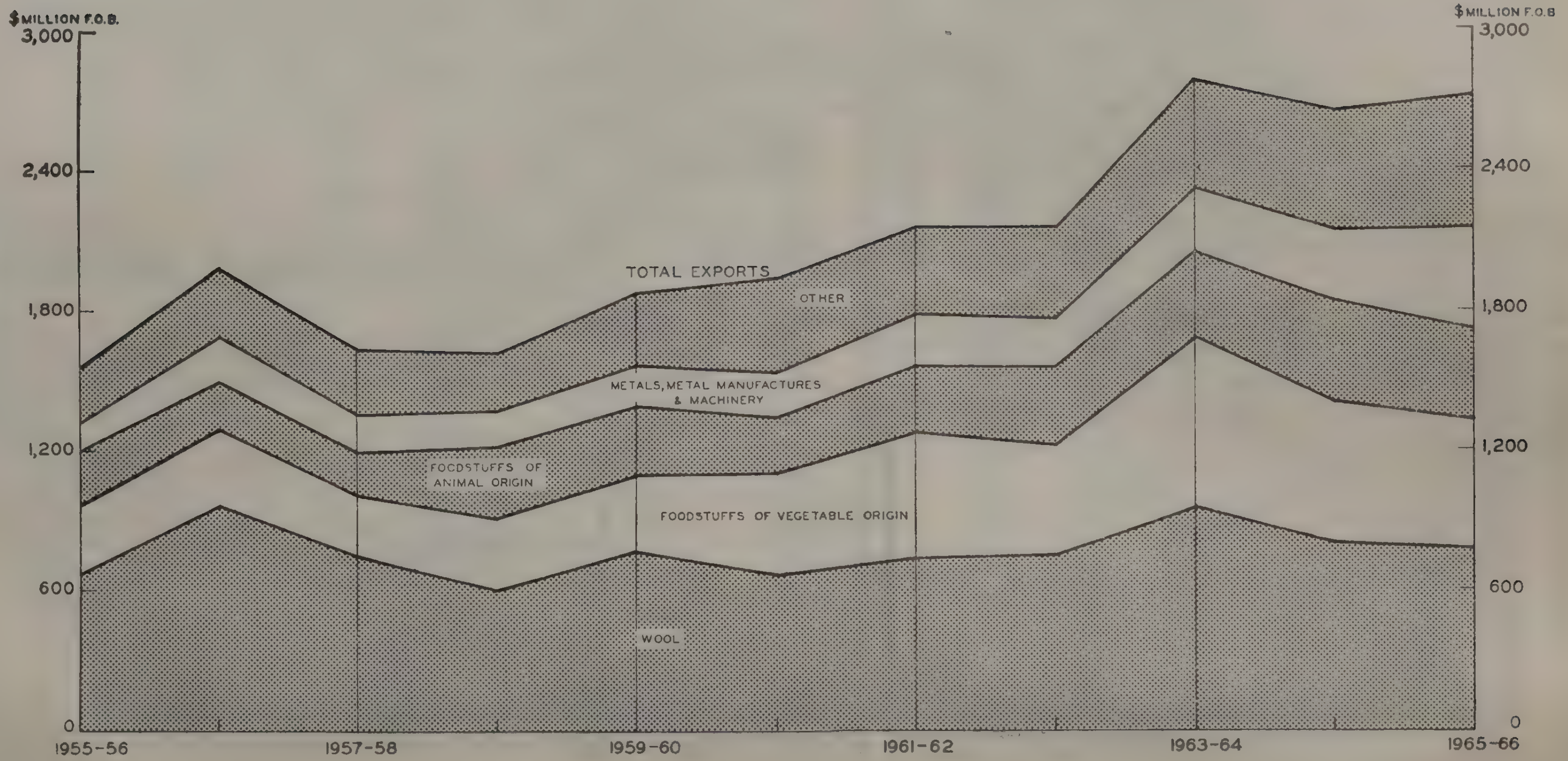
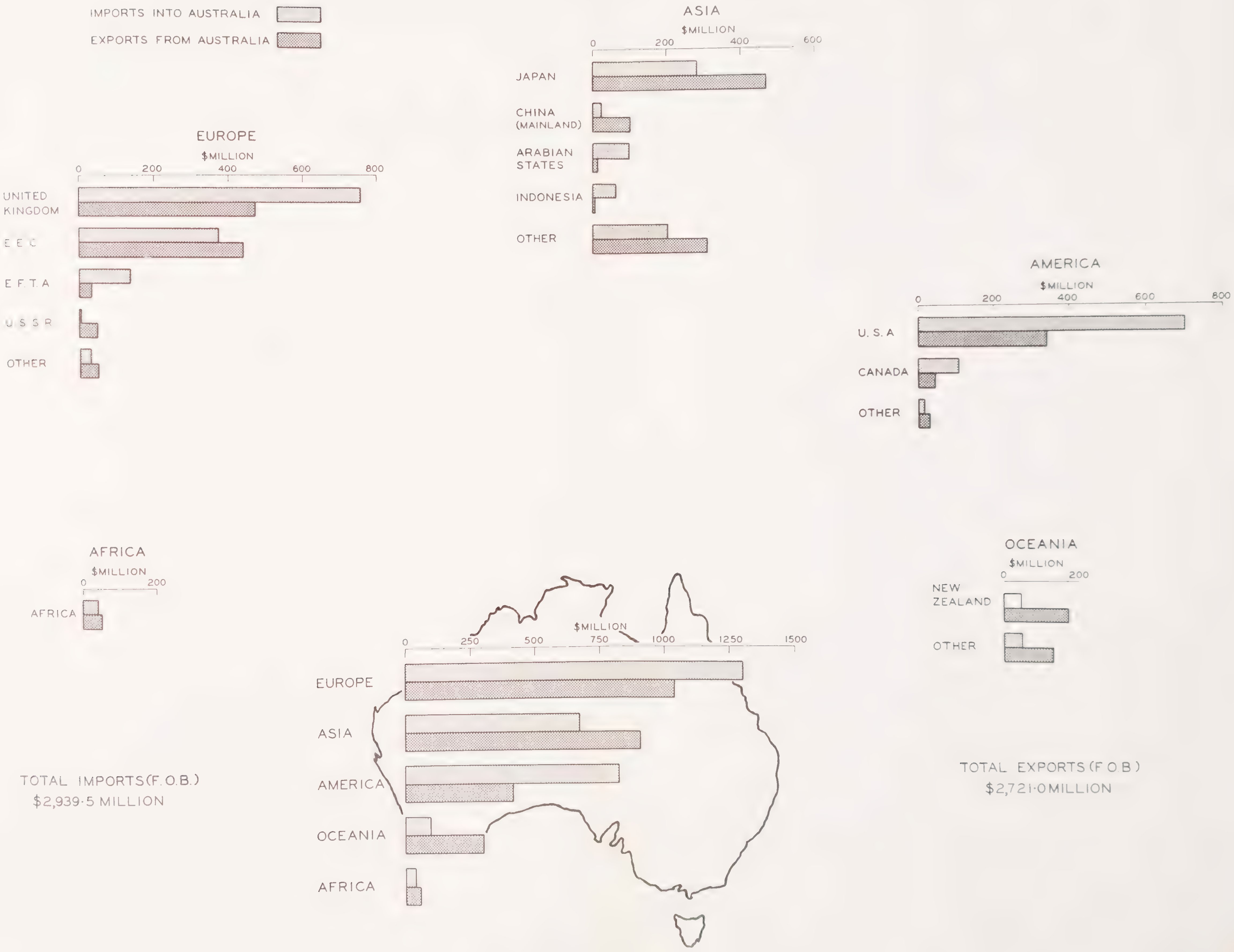


PLATE 27

OVERSEAS TRADE: BY MAJOR GROUPS OF COUNTRIES

AUSTRALIA, 1965-66



TOTAL IMPORTS (F.O.B.)
$2,939·5 MILLION

TOTAL EXPORTS (F.O.B.)
$2,721·0 MILLION

PLATE 28

TRADE WITH UNITED KINGDOM AND OTHER COUNTRIES

AUSTRALIA, 1965-66

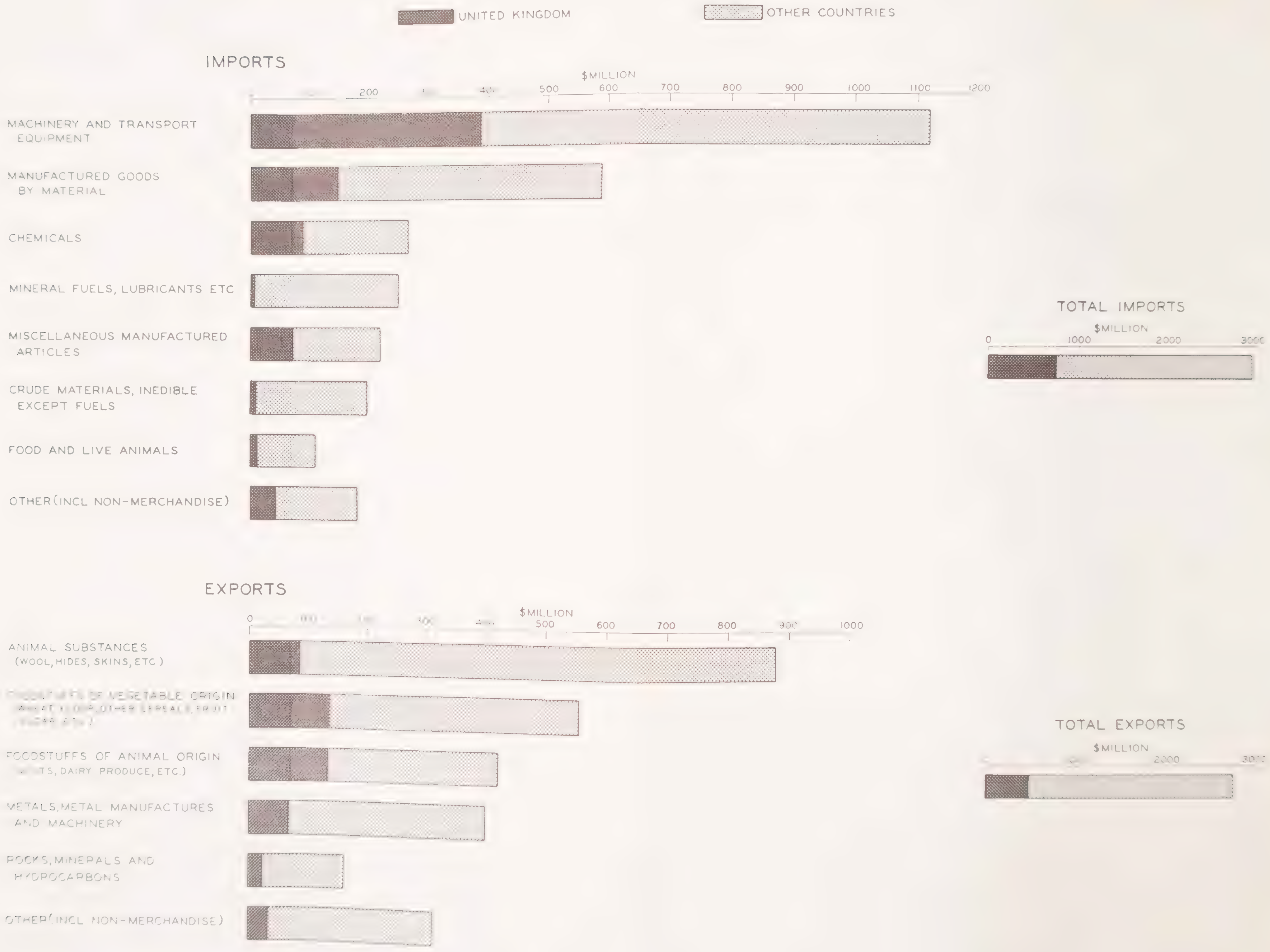
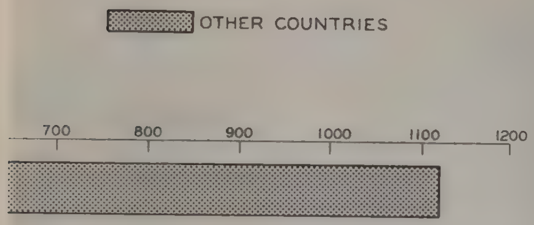
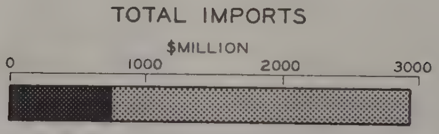


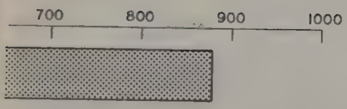
PLATE 29

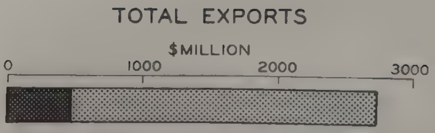
OM AND OTHER COUNTRIES

A, 1965-66









Imports

The following table shows the value of recorded imports according to divisions of the Australian Import Commodity Classification (based on the Standard International Trade Classification) during each of the years 1963–64 to 1965–66.

VALUE OF RECORDED IMPORTS: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1963–64 TO 1965–66

Division no.	Description	Value ($'000 f.o.b.)		
		1963–64(*a*)	1964–65(*a*)	1965–66
00	Live animals	1,818	2,352	1,786
01	Meat and meat preparations	2,028	1,260	459
02	Dairy products and eggs	2,462	2,889	3,340
03	Fish and fish preparations	22,194	24,023	29,488
04	Cereals and cereal preparations	1,212	1,453	2,302
05	Fruit and vegetables	11,538	15,000	17,246
06	Sugar and sugar preparations and honey	1,716	2,032	2,056
07	Coffee, tea, cocoa, spices and manufactures thereof	45,922	46,373	46,718
08	Feeding stuff for animals (excluding unmilled cereals)	2,300	3,110	5,270
09	Miscellaneous preparations chiefly for food	1,026	1,271	1,351
11	Beverages	9,164	10,780	11,279
12	Tobacco and tobacco manufactures	26,880	24,866	26,174
21	Hides, skins and fur skins, undressed	3,350	3,023	2,924
22	Oil seeds, oil nuts and oil kernels	6,194	6,690	10,845
23	Crude rubber (including synthetic and reclaimed)	28,558	31,972	26,005
24	Wood, timber and cork	35,492	40,143	34,522
25	Pulp and waste paper	23,264	28,450	26,249
26	Textile fibres and their waste	46,634	50,102	36,816
27	Crude fertilisers and crude minerals (excluding coal, petroleum and precious stones)	32,286	39,960	45,519
28	Metalliferous ores and metal scrap	4,014	6,128	4,008
29	Crude animal and vegetable materials, n.e.s.	13,636	13,681	10,462
32	Coal, coke, and briquettes	235,036	243,421	487
33	Petroleum and petroleum products			251,492
34	Petroleum gases and other gaseous hydrocarbons	52	62	11
41	Animal oils and fats	13,798	14,410	1,753
42	Fixed vegetable oils and fats			12,149
43	Animal and vegetable oils and fats, processed, and waxes of animal or vegetable origin			1,341
51	Chemical elements and compounds	(*b*)	(*b*)	87,340
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	(*b*)	(*b*)	3,291
53	Dyeing, tanning and colouring materials	12,310	13,735	15,039
54	Medicinal and pharmaceutical products	35,216	38,922	35,962
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	10,966	12,082	11,903
56	Fertilisers, manufactured	8,328	9,220	7,680
57	Explosives and pyrotechnic products	3,328	5,680	4,827
58	Plastic materials, regenerated cellulose and artificial resins	(*c*) 152,764	(*c*) 175,716	67,546
59	Chemical materials and products, n.e.s.			32,170
61	Leather, leather manufactures, n.e.s., and dressed fur skins	3,546	4,699	5,255
62	Rubber manufactures, n.e.s.	16,478	27,038	28,170
63	Wood and cork manufactures (excluding furniture)	6,718	8,922	9,499

For footnotes *see* next page.

VALUE OF RECORDED IMPORTS: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1963–64 TO 1965–66—*continued*

Division no.	Description	Value ($'000 f.o.b.)		
		1963–64(*a*)	1964–65(*a*)	1965–66
64	Paper, paperboard and manufactures thereof	78,038	85,699	83,699
65	Textile yarn, fabrics, made-up articles and related products	213,984	250,840	232,420
66	Non-metallic mineral manufactures, n.e.s.	42,596	50,772	53,141
67	Iron and steel	59,774	103,054	86,228
68	Non-ferrous metals	22,638	63,383	19,516
69	Manufactures of metal, n.e.s.	859,968	1,101,929	71,707
71	Machinery, other than electric			565,998
72	Electrical machinery, apparatus and appliances			180,972
73	Transport equipment (including warships, and military aircraft)			373,914
81	Sanitary, plumbing, heating and lighting fixtures and fittings	3,872	4,749	3,472
82	Furniture	2,682	3,091	3,426
83	Travel goods, handbags and similiar articles	3,890	4,887	3,470
84	Clothing and clothing accessories and articles of knitted or crocheted fabric	15,834	18,308	19,122
85	Footwear, gaiters and similar articles and parts therefor	3,792	4,470	4,812
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	49,924	61,276	79,759
89	Miscellaneous manufactured articles, n.e.s.	93,338	101,635	106,182
9(*a*)	Commodities and transactions not classified according to kind	59,018	77,768	89,708
	Total merchandise imports	*2,329,576*	*2,841,326*	*2,898,280*
9(*b*)	Non-merchandise	43,082	63,377	41,212
	Total recorded imports	**2,372,658**	**2,904,703**	**2,939,492**

(*a*) Figures for 1963–64 and 1964–65 are estimated only. Estimates for those divisions which have been grouped are not available. (*b*) Included with divisions 58 and 59. (*c*) Includes divisions 51 and 52.

Imports of merchandise, by economic class

The following table shows the value of imports of merchandise into Australia during the years 1963–64 to 1965–66 classified according to economic classes of (i) purpose and (ii) degree of manufacture. The classification according to economic classes for the years 1955–56 to 1965–66 is shown in graphical form on plate 30, opposite.

IMPORTS OF MERCHANDISE, BY ECONOMIC CLASS

AUSTRALIA, 1961-62 TO 1965-66

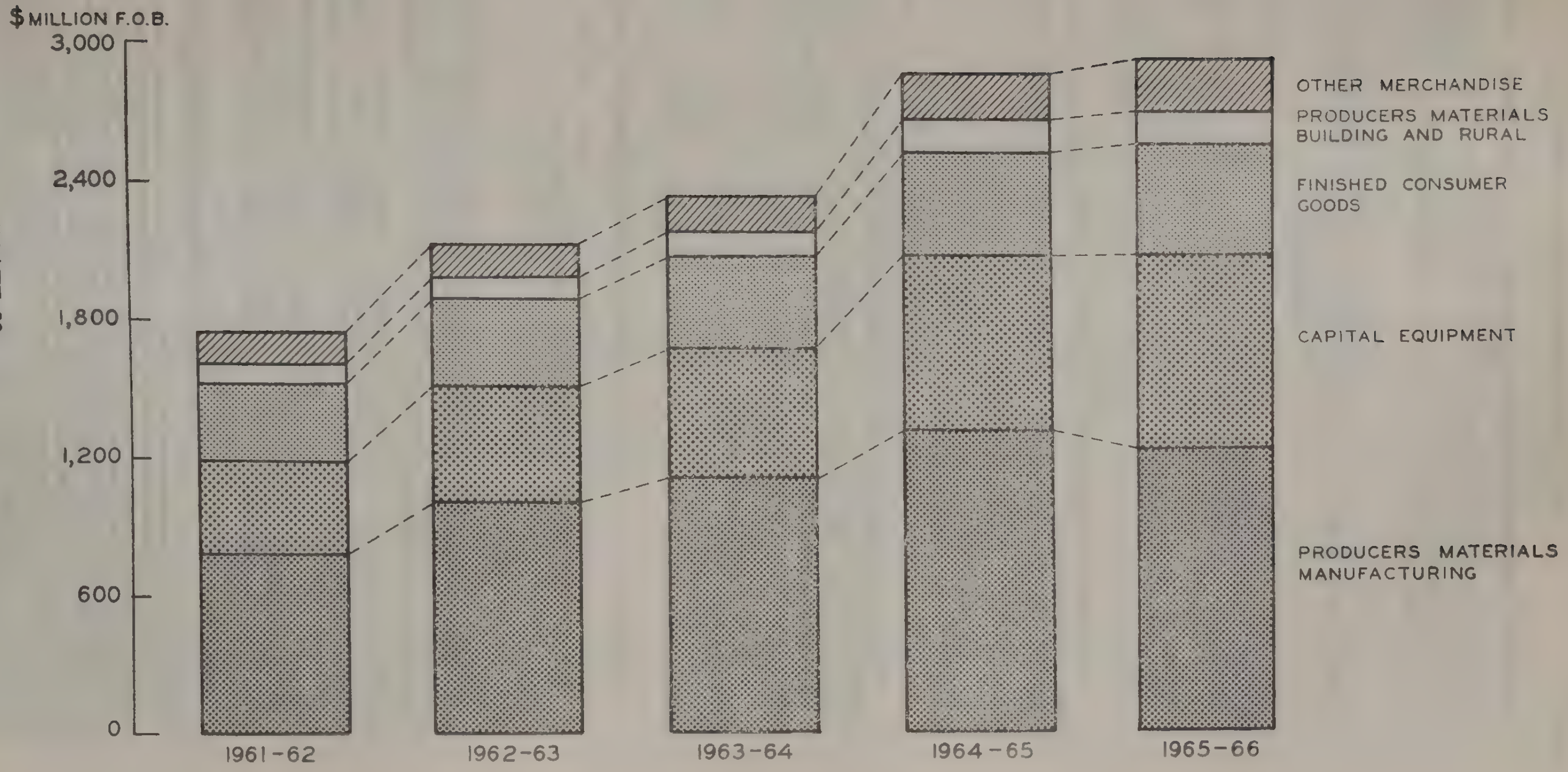


PLATE 30

VALUE OF IMPORTS OF MERCHANDISE, BY ECONOMIC CLASS: AUSTRALIA 1963-64 TO 1965-66

	Value ($'000 f.o.b.)			Proportion of value of imports of merchandise (Per cent)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
PURPOSE						
Producers' materials for use in—						
Building and construction	76,868	100,102	93,680	3.3	3.5	3.2
Rural industries	32,452	41,130	40,360	1.4	1.4	1.4
Manufacturing—						
Motor vehicle assembly(*a*)	208,542	229,384	207,855	9.0	8.1	7.2
Other(*b*)	900,378	1,085,056	1,015,816	38.6	38.2	35.0
Total, producers' materials(b)	*1,218,240*	*1,455,672*	*1,357,711*	*52.3*	*51.2*	*46.8*
Capital equipment(*c*)—						
Producers' equipment	470,468	596,900	671,586	20.2	21.0	23.1
Transport equipment—						
Complete road vehicles and assembled chassis	55,786	79,972	74,671	2.4	2.8	2.6
Railway equipment, vessels and civil aircraft	39,180	71,004	92,276	1.7	2.5	3.2
Total, capital equipment	*565,434*	*747,876*	*838,533*	*24.3*	*26.3*	*28.9*
Finished consumer goods—						
Food, beverages and tobacco	91,524	102,868	109,574	3.9	3.6	3.8
Clothing and accessories	16,706	19,920	21,150	0.7	0.7	0.7
All other(*d*)	282,040	322,972	344,548	12.1	11.4	11.9
Total, finished consumer goods(d)	*390,270*	*445,760*	*475,272*	*16.7*	*15.7*	*16.4*
Fuels and lubricants(*e*)	57,596	54,024	48,385	2.5	1.9	1.7
Auxiliary aids to production(*f*)	70,292	84,244	92,471	3.0	3.0	3.2
Munitions and war stores	27,744	53,750	85,907	1.2	1.9	3.0
Grand total	**2,329,576**	**2,841,326**	**2,898,280**	**100.0**	**100.0**	**100.0**
DEGREE OF MANUFACTURE(*g*)						
Producers' materials—						
Crude	349,260	374,632	376,196	15.0	13.2	13.0
Simply transformed	187,930	256,470	202,959	8.1	9.0	7.0
Elaborately transformed	681,050	824,570	778,555	29.2	29.0	26.9
Finished consumer goods—						
Crude	25,502	26,568	29,796	1.1	0.9	1.0
Simply transformed	37,030	43,404	43,982	1.6	1.5	1.5
Elaborately transformed	327,738	375,788	401,494	14.0	13.3	13.8
Total imports—						
Crude	374,762	401,200	405,992	16.1	14.1	14.0
Simply transformed	324,354	402,286	343,023	13.9	14.2	11.8
Elaborately transformed	1,630,460	2,037,840	2,149,265	70.0	71.7	74.2
Grand total	**2,329,576**	**2,841,326**	**2,898,280**	**100.0**	**100.0**	**100.0**

(*a*) Owing to insufficient information, it is not possible to treat unassembled tractors and other machinery in a similar manner to motor vehicles, and all such machinery and replacement parts therefor are treated as capital equipment whether imported in an assembled or unassembled condition. (*b*) Excludes a percentage for piece goods to be sold by retail, and paper to be used solely for wrapping, which are recorded in Finished consumer goods, All other, and Auxiliary aids to production, respectively. (*c*) *See* footnote (*a*). (*d*) Includes a percentage for piece-goods to be sold at retail; *see* footnote (*b*). (*e*) Excludes crude petroleum, which is included in Producers' materials, Manufacturing—Other. (*f*) Includes a percentage for paper to be used solely for wrapping; *see* footnote (*b*). (*g*) The class Fuels and lubricants consists of goods 'simply transformed', and the classes Capital equipment and Munitions and war stores entirely of goods 'more elaborately transformed'. The class Auxiliary aids to production is about equally divided between goods 'simply transformed' and 'elaborately transformed'.

Exports, by industrial group

The following table provides an analysis of the value of Australian exports for the years 1963–64 to 1965–66. This analysis is designed to show fluctuations in the value of exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily arbitrary in some respects.

VALUE OF EXPORTS OF AUSTRALIAN PRODUCE, BY INDUSTRIAL GROUP
1963–64 TO 1965–66

Industrial group	Value ($'000 f.o.b.)			Proportion of value of exports of Australian produce (excluding gold) (per cent)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Agriculture, horticulture and viticulture—						
Unprocessed	440,172	375,404	339 334	16.2	14.6	13.0
Processed	282,852	227,422	210,353	10.5	8.9	8.0
Total, agriculture, etc.	723,024	602,826	549,687	26.7	23.5	21.0
Pastoral—						
Unprocessed	1,177,422	1,065,265	1,054,084	43.4	41.6	40.3
Processed	144,810	123,701	133,284	5.3	4.8	5.1
Total, pastoral	1,322,232	1,188,966	1,187,368	48.7	46.4	45.4
Dairy and farmyard—						
Unprocessed	4,954	3,622	4,045	0.2	0.1	0.2
Processed	95,948	114,262	97,165	3.5	4.5	3.7
Total, dairy, etc.	100,902	117,884	101,210	3.7	4.6	3.9
Mines and quarries (other than gold)—						
Unprocessed	82,112	124,358	147,018	3.0	4.9	5.6
Processed	109,626	118,673	151,851	4.1	4.6	5 8
Total, mines, etc.	191,738	243,031	298,869	7.1	9.5	11.4
Fisheries—						
Unprocessed	14,658	18,197	25,805	0.6	0.7	1.0
Processed	1,036	1,246	1,216	..	..	..
Total, fisheries	15,694	19,443	27,021	0.6	0.7	1.0
Forestry—						
Unprocessed	1,028	968	557	..	..	..
Processed	5,484	4,785	4,182	0.2	0.2	0.2
Total, forestry	6,512	5,753	4,739	0.2	0.2	0.2
Total, primary produce—						
Unprocessed	1,720.346	1,587,814	1,570,843	63.4	61.9	60.1
Processed	639,756	590,089	598,051	23.6	23.0	22.8
Total, primary produce	*2,360,102*	*2,177,903*	*2,168,894*	*87.0*	*84.9*	*82.9*
Manufactures	279,612	320,911	375,129	10.3	12.5	14.5
Refined petroleum oils	38,626	22,315	18,985	1.4	0.9	0.7
Unclassified	34,284	42,379	50,671	1.3	1.7	1.9
Total Australian produce (excluding gold)	2,712,625	2,563,509	2,613,679	100.0	100.0	100.0
Re-exports (excluding gold)	55,546	69,536	82,856	..	..	..
Gold exports	14,289	18,404	24,418	..	..	..
Total value of recorded exports	2,782,460	2,651,449	2,720,953	..	..	..

In the year 1965–66 Australian produce (other than gold) exported amounted to approximately $2,614 million. Of this, $2,169 million or 83 per cent was mainly the produce of primary industries, comprising $1,571 million of unprocessed produce and $598 million of goods which had been processed to some degree before export. The values of the principal individual items of processed Australian primary produce exported were ($'000): raw sugar, 92,760; flour, etc., 24,754; canned fruit, 37,763; dried fruit, 28,439; wool (scoured, tops, etc.), 85,078; canned meats, 14,588; butter, 49,989; milk (condensed, dried, etc.), 19,264; pig lead 40,333; lead bullion, 25,918; zinc bars, blocks, etc., 26,996; copper ingots, 20,357; and undressed timber, 2,704. The value of manufactures exported as classified on page 389 was $375 million, approximately 15 per cent of Australian produce (other than gold) exported in 1965–66. The values of principal individual items here included were ($'000); manufactures of metal, 138,899; implements and machinery, 43,098; drugs and chemicals, 34,538; and paper and stationery, 12,753. Refined petroleum oils exported are shown separately, as they consist largely of imported crude oils refined in Australia and re-exported in the refined form. The values of principal individual items shown as 'unclassified' in 1965–66 were ($'000): individual consignments of less than $100 in value, 13,086; and military equipment and stores and supplies for Australian projects overseas, 10,469.

The items enumerated indicate the arbitrariness of the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

External trade of Australia and other countries

Essentials of comparison

Direct comparison of the external trade statistics of countries is possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in one country the value of recorded imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of recorded imports and exports in one may be based on transaction values, whereas in another they may be based on the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of recorded imports would result from the different methods of converting the moneys of foreign countries, i.e. from the application of current rates of exchange or of the mint par. Finally, the external trade statistics of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium-Luxembourg than that of other countries. France and the United Kingdom also have substantial re-exports, whereas in Canada, Australia and New Zealand re-exports account for a comparatively small proportion of the total recorded trade.

Direction of overseas trade

Tables on pages 392–6 give details of recorded exports to principal countries by statistical class and of recorded imports by section of the Australian Import Commodity Classification. Australia's trade with major groups of countries is shown in the table on pages 396–7. Particulars of Australia's balance of payments with countries in these groups are shown on pages 418–19.

The two following tables show the value of Australian recorded imports and exports during each of the years 1963–64 to 1965–66 according to principal country of origin and consignment respectively, the second table in terms of percentage. The proportions of Australian imports and exports by country of origin or consignment are shown graphically on plate 31 opposite.

VALUES OF IMPORTS AND EXPORTS: PROPORTIONS, BY COUNTRY

AUSTRALIA, 1961-62 TO 1965-66

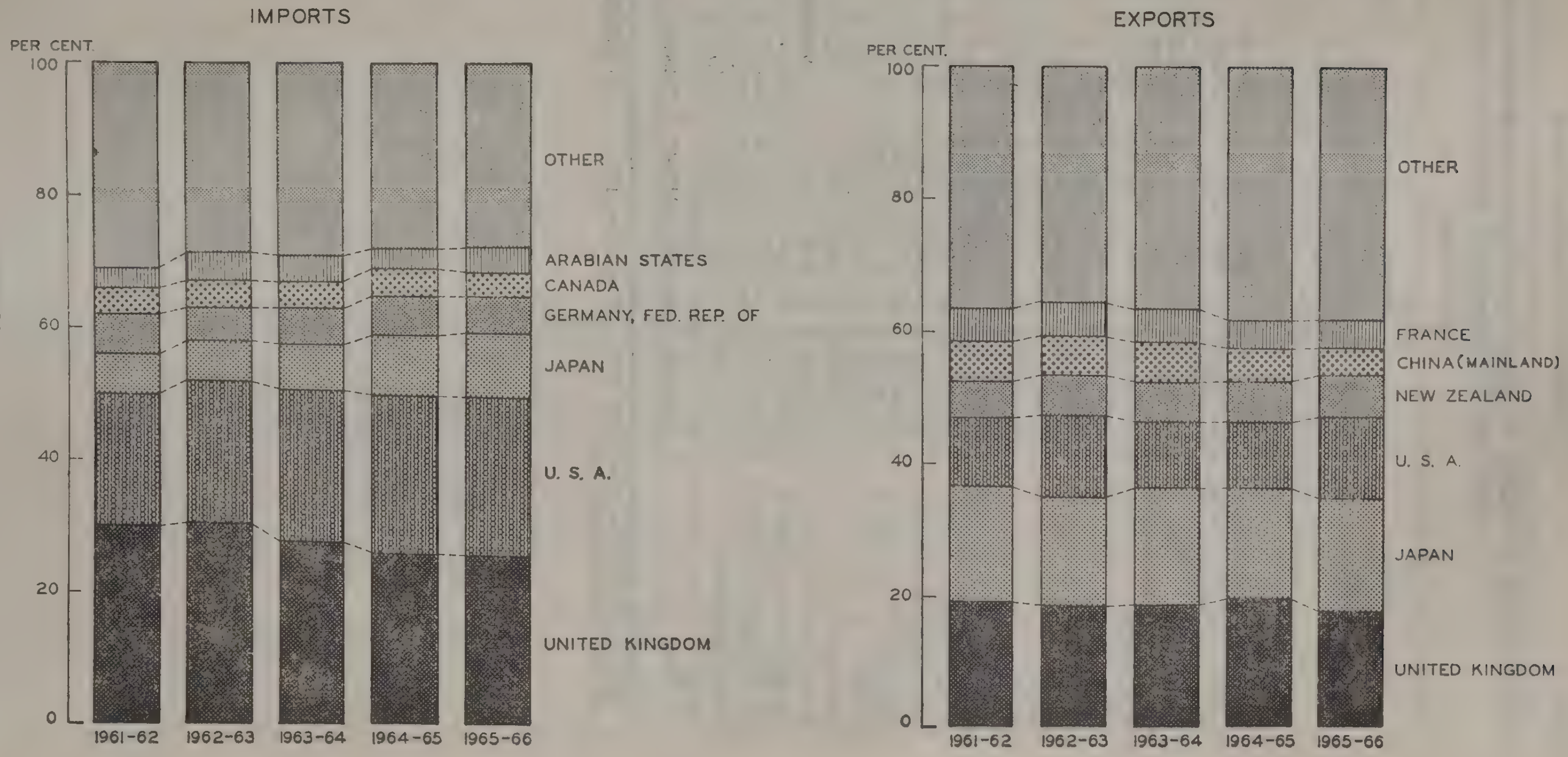


PLATE 31

VALUES OF AUSTRALIAN RECORDED IMPORTS AND EXPORTS, BY COUNTRY OF ORIGIN OR CONSIGNMENT, 1963–64 TO 1965–66

($'000 f.o.b.)

Country	Imports			Exports		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Belgium-Luxembourg	16,754	24,880	16,530	59,776	59,514	50,570
Canada	95,872	117,006	107,972	50,390	39,914	43,171
China (mainland)	16,356	22,862	23,460	168,190	135,633	106,541
France	40,058	66,903	91,670	137,570	111,781	118,408
Germany, Federal Republic of	130,776	161,014	168,226	91,846	83,837	100,300
Hong Kong	18,826	24,414	25,358	50,194	54,757	58,774
India	34,610	40,909	35,012	35,434	55,400	28,001
Indonesia	55,438	64,034	61,763	9,648	7,431	5,359
Iran	37,704	26,698	34,159	5,028	18,449	14,118
Italy	40,158	50,511	49,701	108,624	85,190	110,244
Japan	162,468	258,574	280,173	487,810	440,740	470,410
Malaysia	29,608	(*a*)52,322	(*a*)31,924	32,080	(*a*)82,917	(*a*)49,770
Netherlands	31,130	36,762	40,223	15,854	20,702	38,985
New Zealand	44,894	46,541	46,859	166,350	158,302	171,277
Papua and New Guinea	18,128	19,720	17,633	48,508	58,517	72,722
Saudi Arabia	40,938	49,974	45,839	4,812	5,431	6,321
Singapore	6,830	(*b*)	(*b*)3,699	36,996	(*b*)	(*b*)34,004
Sweden	45,618	53,568	51,787	5,366	8,584	9,135
Switzerland	30,010	35,458	43,011	3,022	4,136	4,789
United Kingdom	659,068	761,412	758,751	511,988	516,226	473,358
United States of America	542,494	692,246	703,597	280,800	264,193	338,388
U.S.S.R.	1,850	2,167	1,578	114,132	76,441	47,892
Other countries	269,304	290,653	289,469	339,254	355,894	363,089
Country unknown	3,766	6,075	11,098	18,788	7,460	5,327
Total	**2,372,658**	**2,904,703**	**2,939,492**	**2,782,460**	**2,651,449**	**2,720,953**

(*a*) Includes Singapore from 1 July 1964 to 30 September 1965. (*b*) Included with Malaysia from 1 July 1964 to 30 September 1965.

VALUES OF AUSTRALIAN RECORDED IMPORTS AND EXPORTS: PROPORTIONS BY COUNTRY OF ORIGIN OR CONSIGNMENT, 1963-64 TO 1965-66

(Per cent of total)

Country	Imports			Exports		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Belgium-Luxembourg	0.71	0.86	0.56	2.16	2.24	1.86
Canada	4.04	4.03	3.67	1.81	1.51	1.59
China (mainland)	0.69	0.79	0.80	6.05	5.12	3.91
France	1.69	2.30	3.12	4.95	4.22	4.35
Germany, Federal Republic of	5.51	5.54	5.72	3.30	3.16	3.69
Hong Kong	0.79	0.84	0.86	1.80	2.07	2.16
India	1.46	1.41	1.19	1.27	2.09	1.03
Indonesia	2.34	2.20	2.10	0.35	0.28	0.20
Iran	1.59	0.92	1.16	0.18	0.70	0.52
Italy	1.69	1.74	1.69	3.90	3.21	4.05
Japan	6.85	8.90	9.53	17.53	16.62	17.29
Malaysia	1.25	(*a*)1.80	(*a*)1.09	1.15	(*a*)3.13	(*a*)1.83
Netherlands	1.31	1.27	1.37	0.57	0.78	1.43
New Zealand	1.89	1.60	1.60	5.98	5.97	6.29
Papua and New Guinea	0.76	0.68	0.60	1.74	2.21	2.67
Saudi Arabia	1.73	1.72	1.56	0.17	0.20	0.23
Singapore	0.29	(*b*)	(*b*)0.13	1.33	(*b*)	(*b*)1.25
Sweden	1.92	1.84	1.76	0.19	0.32	0.32
Switzerland	1.26	1.22	1.46	0.11	0.16	0.18
United Kingdom	27.78	26.21	25.81	18.40	19.47	17.40
United States of America	22.86	23.83	23.94	10.09	9.96	12.44
U.S.S.R.	0.08	0.08	0.05	4.10	2.88	1.76
Other countries	11.35	10.01	9.85	12.19	13.42	13.35
Country unknown	0.16	0.21	0.38	0.68	0.28	0.20
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

(*a*) Includes Singapore from 1 July 1964 to 30 September 1965. (*b*) Included with Malaysia from 1 July 1964 to 30 September 1965.

VALUE OF RECORDED EXPORTS TO PRINCIPAL COUNTRIES, BY STATISTICAL CLASS: AUSTRALIA, 1963-64 TO 1965-66

($'000 f.o.b.)

Class	Year	China (main-land)	France	Germany Federal Republic of	Hong Kong	Italy	Japan
I. Foodstuffs of animal origin	1963–64	12	2.957	2.462	3,595	2,993	13,311
	1964–65	8	6.507	4.550	3,718	11,847	14,989
	1965–66	16	4,545	3.734	3,524	5.291	22.126
II. Foodstuffs of vegetable origin	1963–64	133,361	651	23.500	7,978	2,074	94.062
	1964–65	117,722	917	17,443	5,978	4,063	71,648
	1965–66	100,382	1,549	24,587	5,932	4,836	44,041
III. Spirituous and alcoholic liquors	1963–64	..	..	4	89	4	38
	1964–65	..	..	..	96	2	36
	1965–66	..	..	1	102	1	29
IV. Tobacco and preparations thereof	1963–64	..	..	..	42	..	..
	1964–65	..	..	..	2	..	1
	1965–66	..	..	1	2	..	..
V. Live animals	1963–64	..	..	1	346	..	56
	1964–65	49	..	1	170	..	105
	1965–66	48	..	3	41	1	55
VI. Animal substances	1963–64	31,247	131.496	58,810	11,192	95,974	287,622
	1964–65	15,348	100 862	53,740	7,948	64,126	248,855
	1965–66	3,976	105,449	54,205	8,524	91,198	272,654
VII. Vegetable substances and fibres	1963–64	..	19	311	11	124	67
	1964–65	..	19	412	9	165	137
	1965–66	..	12	368	5	175	152
VIII. Yarns and manufactured fibres, textiles and apparel	1963–64	15	53	19	600	432	650
	1964–65	40	46	32	715	272	658
	1965–66	15	56	133	723	485	600
IX. Oils, fats and waxes	1963–64	1,233	38	58	139	269	5,742
	1964–65	1,876	273	66	166	304	3,412
	1965–66	785	33	200	161	494	2,086
X. Pigments, paints and varnishes	1963–64	..	1	1	47	15	35
	1964–65	..	..	22	73	1	23
	1965–66	149	18	26	163	27	37
XI. Rocks, minerals and hydrocarbons	1963–64	364	1,268	1,381	71	1,066	46,487
	1964–65	296	1,893	2,778	272	909	69,478
	1965–66	..	2,610	3,528	499	1,305	86,110
XII. Metals, metal manufactures and machinery	1963–64	1,792	541	3.448	6,099	5,110	29,185
	1964–65	274	370	3,110	6,538	2,730	18,786
	1965–66	1,096	2,557	10,974	7,235	5,385	26,279
XIII. Rubber and leather and manufactures thereof	1963–64	50	7	128	1,003	34	224
	1964–65	5	15	144	1,191	24	412
	1965–66	49	23	107	1,323	24	383
XIV. Wood and wicker	1963–64	3	11	12	81	7	8
	1964–65	..	11	58	165	5	80
	1965–66	..	5	40	97	13	121
XV. Earthenware, cement, china, glass and stoneware	1963–64	..	1	11	24	2	3
	1964–65	..	1	6	75	..	18
	1965–66	..	1	53	89	10	10
XVI. Paper and stationery	1963–64	..	11	13	454	14	332
	1964–65	..	10	29	771	6	95
	1965–66	..	20	22	771	11	88
XVII. Sporting material, toys, fancy goods, jewellery and timepieces	1963–64	1	66	386	1.064	13	5,050
	1964–65	4	76	444	1,297	40	4,359
	1965–66	15	177	690	1,462	38	4,924
XVIII. Optical, surgical and scientific instruments and photographic goods, n.e.i.	1963–64	..	24	137	63	20	67
	1964–65	..	38	269	50	33	86
	1965–66	6	94	273	52	115	129
XIX. Chemicals, medicinal and pharmaceutical products, essential oils and fertilisers	1963–64	7	116	309	472	28	4,237
	1964–65	3	26	299	1,535	61	6,390
	1965–66	1	272	461	626	193	9,462
XX. Miscellaneous	1963–64	105	44	513	1,950	47	199
	1964–65	1	141	210	5,066	108	482
	1965–66	2	334	308	1,946	85	431
XXI. Silver	1963–64	..	..	..	..	..	..
	1964–65	..	189	..	1	..	..
	1965–66	..	..	..	..	..	..
Total merchandise exports	*1963–64*	*168,190*	*137.304*	*91.504*	*35,320*	*108.226*	*487,376*
	1964–65	*135.626*	*111,394*	*83,615*	*35.835*	*84.696*	*440,048*
	1965–66	*106,541*	*117,755*	*99,714*	*33,279*	*109,687*	*469,718*
XXII. Non-merchandise	1963–64	..	266	342	14,874	397	434
	1964–65	7	387	223	18.922	494	692
	1965–66	..	652	586	25,495	557	692
Total recorded exports	**1963–64**	**168,190**	**137.570**	**91.846**	**50.194**	**108.624**	**487.810**
	1964–65	**135.633**	**111.781**	**83.837**	**54.757**	**85.190**	**440.740**
	1965–66	**106,541**	**118,408**	**100.300**	**58,774**	**110,244**	**470,410**

VALUE OF RECORDED EXPORTS TO PRINCIPAL COUNTRIES, BY STATISTICAL CLASS: AUSTRALIA, 1963-64 TO 1965-66—*continued*

($'000 f.o.b.)

Class	Year	New Zealand	Papua and New Guinea	United Kingdom	United States of America	Total Recorded Exports
I. Foodstuffs of animal origin	1963–64	51	4,095	100,409	163,784	362,764
	1964–65	31	5,630	164,520	118,167	427,312
	1965–66	163	6,758	133,386	156,562	419,287
II. Foodstuffs of vegetable origin	1963–64	24,864	6,107	155,228	22,978	725,046
	1964–65	19,025	6,762	124,359	19,691	604,826
	1965–66	16,038	9,002	136,903	21,526	553,086
III. Spirituous and alcoholic liquors	1963–64	210	964	1,686	52	5,536
	1964–65	263	837	2,254	48	6,245
	1965–66	296	814	1,983	63	6,463
IV. Tobacco and preparations thereof	1963–64	26	1,137	..	..	1,780
	1964–65	34	1,168	44	2	1,925
	1965–66	35	1,209	1	13	2,003
V. Live animals	1963–64	175	123	3	457	4,817
	1964–65	255	209	5	101	4,199
	1965–66	319	125	4	446	4,810
VI. Animal substances	1963–64	2,148	8	160,715	45,617	1,055,615
	1964–65	3,351	11	116,670	65,780	889,432
	1965–66	3,193	61	84,564	71,422	877,329
VII. Vegetable substances and fibres	1963–64	604	50	719	1,119	3,861
	1964–65	932	69	397	960	4,086
	1965–66	499	62	350	1,194	4,017
VIII. Yarns and manufactured fibres, textiles and apparel	1963–64	7,238	830	826	886	14,666
	1964–65	7,810	966	441	1,143	15,517
	1965–66	7,731	1,136	1,074	1,306	17,121
IX. Oils, fats and waxes	1963–64	24,233	717	4,938	248	57,969
	1964–65	8,318	988	5,079	463	43,456
	1965–66	6,350	1,289	2,055	180	34,395
X. Pigments, paints and varnishes	1963–64	549	505	42	69	2,661
	1964–65	501	490	60	40	2,837
	1965–66	1,846	726	56	400	5,361
XI. Rocks, minerals and hydrocarbons	1963–64	824	114	15,073	14,180	93,105
	1964–65	1,214	176	21,084	20,888	137,799
	1965–66	1,440	272	22,030	22,153	161,741
XII. Metals, metal manufactures and machinery	1963–64	73.872	12,364	50,777	16,823	280,541
	1964–65	80,763	16,640	56,757	21,329	307,358
	1965–66	92,144	21,854	65,187	39,685	398,397
XIII. Rubber and leather, and manufactures thereof	1963–64	1,047	298	5,166	495	10.780
	1964–65	1,229	405	4,768	481	11,580
	1965–66	1,263	504	5,786	695	12,946
XIV. Wood and wicker	1963–64	1,794	120	688	450	6,166
	1964–65	1,704	134	731	535	5,655
	1965–66	1,969	230	838	432	4,813
XV. Earthenware, cement, china, glass and stoneware	1963–64	1,060	892	202	15	3,390
	1964–65	1,082	1,012	28	15	3,649
	1965–66	1,085	1,581	32	26	4,292
XVI. Paper and stationery	1963–64	5,267	1,459	831	335	12.986
	1964–65	4,470	1,521	1,228	777	14,546
	1965–66	4,790	1,675	1,101	711	14,136
XVII. Sporting material, toys, fancy goods, jewellery and timepieces	1963–64	357	79	1,831	735	10,641
	1964–65	429	94	1,880	877	11,051
	1965–66	583	130	3,280	1,325	14,616
XVIII. Optical, surgical and scientific instruments and photographic goods, n.e.i.	1963–64	2,495	365	2,347	755	7,373
	1964–65	3,185	391	2,624	922	9,332
	1965–66	3,564	536	2,342	1,098	10,205
XIX. Chemicals, medicinal and pharmaceutical products, essential oils and fertilisers	1963–64	8,040	1,648	2,085	2,794	26.617
	1964–65	10,058	1,741	2,302	4,175	34,217
	1965–66	11,999	2,063	2,261	6,924	42.301
XX. Miscellaneous	1963–64	6,486	7,646	4,368	961	34,050
	1964–65	7,680	8,920	4,120	1,520	42,420
	1965–66	8,709	10,930	2,466	3,542	45,735
XXI. Silver	1963–64	46	..	1,540	..	5,281
	1964–65	111	3	251	1	1,727
	1965–66	175	..	300	..	476
Total merchandise exports	*1963–64*	*161,387*	*39,521*	*509,474*	*272,753*	*2,725,646*
	1964–65	*152,446*	*48,167*	*509,602*	*257,915*	*2,579,168*
	1965–66	*164,190*	*60,955*	*465,999*	*329,699*	*2,633,532*
XXII. Non-merchandise	1963–64	4,964	8,987	2,514	8,047	56,814
	1964–65	5,856	10,350	6,624	6,278	72,281
	1965–66	7,087	11,767	7,359	8,689	87,421
Total recorded exports	**1963–64**	**166.350**	**48,508**	**511.988**	**280.800**	**2.782.460**
	1964–65	**158,302**	**58,517**	**516,226**	**264.193**	**2.651,449**
	1965–66	**171,277**	**72,722**	**473,358**	**338,388**	**2,720,953**

VALUE OF RECORDED IMPORTS FROM PRINCIPAL COUNTRIES SECTIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION 1963–64 TO 1965–66

($'000 f.o.b.)

Section number	Description	Year	France	Germany, Federal Republic of	Japan	United Kingdom	United States of America	Total recorded imports
0	Food and live animals	1963–64	424	1,235	4,943	8,004	4,445	92,216
		1964–65	382	1,055	6,345	9,248	6,051	99,763
		1965–66	385	1,376	8,235	11,140	8,441	110,016
1	Beverages and tobacco	1963–64	651	99	12	8,806	18,344	36,044
		1964–65	945	112	9	10,093	14,508	35,646
		1965–66	960	115	14	10,477	17,453	37,453
2	Crude materials, inedible, except fuels	1963–64	1,026	1,504	5,086	10,333	44,497	193,428
		1964–65	933	1,801	5,256	10,769	47,253	220,149
		1965–66	1,345	1,181	5,669	8,660	43,536	197,350
3	Mineral fuels, lubricants and related materials	1963–64	47	76	1,385	2,068	11,056	235,088
		1964–65	628	118	1,718	2,085	9,121	243,483
		1965–66	133	495	4,390	2,034	7,512	251,990
4	Animal and vegetable oils and fats	1963–64	66	361	530	896	2,245	13,798
		1964–65	39	498	1,796	911	3,540	14,410
		1965–66	24	875	1,931	897	3 661	15,243
5	Chemicals . .	1963–64	4,994	26,062	13,535	74,156	66,409	222,912
		1964–65	7,584	27.286	13,344	87,276	74,862	255,355
		1965–66	6,772	29,881	19,290	88,279	76,956	265,758
6	Manufactured goods classified chiefly by material	1963–64	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
		1964–65	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
		1965–66	9,770	20,800	132,535	147,221	77,379	589,635
	Machinery and transport equipment	1963–64	(*b*) 28,940	(*b*) 84,252	(*b*)115,439	(*b*)466,443	(*b*)333,924	*b*1,303,740
		1964–65	(*b*) 50,878	(*b*)109,009	(*b*)195,371	(*b*)532,299	(*b*)460,887	*b*1,696,336
		1965–66	53,657	92,174	72,660	388,649	387,912	1,120,884
8	Miscellaneous manufactured articles	1963–64	2,536	13,010	18,169	60,819	38,068	173,332
		1964–65	3,230	15,158	24,111	67,872	41,875	198,416
		1965–66	3,691	16,355	26,488	71,466	51,446	220,243
9(*a*)	Commodities and transactions of merchandise trade not elsewhere classified	1963–64	1,058	3,240	2,843	19,181	13,573	59,018
		1964–65	1,531	3,834	3,828	20,359	20,422	77,768
		1965–66	14,187	4,165	4,851	22,866	22,745	89,708
	Total merchandise imports	*1963–64*	*39,744*	*129,839*	*161,941*	*650,708*	*532,562*	*2,329,576*
		1964–65	*66,152*	*158,871*	*251,779*	*740,911*	*678,521*	*2,841,326*
		1965–66	*90,924*	*167,417*	*276,061*	*751,691*	*697,041*	*2,898,280*
9(*b*)	Non-merchandise .	1963–64	314	937	527	8,360	9,932	43,082
		1964–65	751	2,143	6,795	20,501	13,725	63,377
		1965–66	746	809	4,112	7,060	6,556	41,212
	Total recorded imports	**1963–64**	**40,058**	**130.776**	**162,468**	**659,068**	**542.494**	**2,372,658**
		1964–65	**66,903**	**161.014**	**258,574**	**761,412**	**692,246**	**2.904.703**
		1965–66	**91,670**	**168,226**	**280,173**	**758,751**	**703,597**	**2,939,492**

(*a*) Section 6 for the years 1963–64 and 1964–65 is not recorded separately, and has been included with section 7. (*b*) Includes section 6. *See* footnote (*a*).

VALUE OF RECORDED TRADE OF AUSTRALIA, BY MAJOR GROUP OF COUNTRIES, 1964–65 AND 1965–66

($'000 f.o.b.)

	1964–65	1965–66
STERLING AREA		
Recorded imports—		
From—United Kingdom	761,412	758,751
Other countries	348,256	335,293
Total	1,109,668	1,094,044
Recorded exports—		
To—United Kingdom	516,226	473,358
Other countries	553,968	554,322
Total	1,070,194	1,027,680
Excess of exports (+) or imports (−) . .	−39,474	−66,362

VALUE OF RECORDED TRADE OF AUSTRALIA, BY MAJOR GROUP OF COUNTRIES, 1964–65 AND 1965–66—*continued*

($'000 f.o.b.)

	1964–65	1965–66
NON-STERLING COUNTRIES—NORTH AMERICA		
Recorded imports—		
From—Canada	117,006	107,972
United States of America(*a*)	692,356	703,775
Total	809,362	811,747
Recorded exports—		
To—Canada	39,914	43,171
United States of America(*a*)	268,440	343,747
Total	308,354	386,918
Excess of exports (+) or imports (—)	—501,008	—424,829
OTHER NON-STERLING COUNTRIES		
Recorded imports—		
From—European Economic Community	345,235	372,282
European Free Trade Association(*b*)	133,584	138,518
Other countries—		
Japan	258,574	280,173
Eastern Europe, China (mainland), etc.	46,469	40,685
Other	201,811	202,043
Total	985,673	1,033,701
Recorded exports—		
To—European Economic Community	385,737	438,929
European Free Trade Association(*b*)	33,271	29,991
Other countries—		
Japan	440,740	470,410
Eastern Europe, China (mainland), etc.	246,908	188,727
Other	166,245	178,298
Total	1,272,901	1,306,355
Excess of exports (+) or imports (—)	+287,228	+272,652
ALL GROUPS		
Total recorded imports	2,904,703	2,939,492
Total recorded exports	2,651,449	2,720,953
Excess of exports (+) or imports (—)	—253,254	—218,539

(*a*) Includes United States of America Territories and Dependencies. (*b*) Other than United Kingdom.

Countries comprising the several groups are listed below.

STERLING AREA—
- Antarctica
- Bahama Is.
- Bahrain
- Barbados
- Basutoland
- Bechuanaland
- Bermuda
- Brunei
- Burma
- Ceylon
- Christmas Is.
- Cocos Is.
- Cook Is.
- Cyprus
- Falkland Is.
- Fiji
- Gambia
- Ghana
- Gibraltar
- Gilbert and Ellice Is.
- Guyana
- Honduras (British)
- Hong Kong
- Iceland
- India
- Ireland
- Jamaica
- Jordan
- Kenya
- Kuwait
- Leeward Is.
- Libya
- Malawi
- Malaysia
- Maldive Is.
- Malta
- Mauritius
- Muscat and Oman
- Nauru
- New Zealand
- Nigeria
- Norfolk Is.
- Pakistan
- Papua and New Guinea
- Qatar
- Rhodesia, Southern
- Ross Dependency
- St. Helena and Ascension
- Seychelles
- Sierra Leone
- Singapore
- Solomon Is.
- South Africa
- South Arabia, Federation of
- South West Africa
- Swaziland
- Tanzania
- Tonga
- Trinidad and Tobago
- Trucial States
- Uganda
- United Kingdom
- Virgin Is. (British)
- Western Samoa
- Windward Is.
- Zambia

NON-STERLING COUNTRIES—

North America—
- Canada
- United States of America and Dependencies (Guam, Puerto Rico, Samoa, Virgin Is. and other Pacific Is.)

European Economic Community—
- Algeria
- Belgium-Luxembourg
- Burundi
- Cameroon
- Central African Republic
- Chad
- Congo-Brazzaville
- Congo-Leopoldville
- Dahomey
- France
- Gabon
- Germany, Federal Republic of
- Greece
- Guiana (French)
- Italy
- Ivory Coast
- Madagascar
- Mali
- Mauritania
- Netherlands
- New Caledonia
- Niger
- Polynesia
- Reunion and Southern Is.
- Rwanda
- St. Pierre and Miquelon
- Senegal
- Somaliland (French)
- Togo
- Upper Volta
- West Indies (French)

European Free Trade Association(a)—
- Angola
- Austria
- Cape Verde Is.
- Denmark
- Finland
- Guinea
- Macao
- Mozambique
- Norway
- Portugal
- Sweden
- Switzerland
- Timor

Eastern Europe, China (mainland), etc.—
- Albania
- Bulgaria
- China (mainland)
- Czechoslovakia
- Germany (East)
- Hungary
- Korea (North)
- Mongolia
- Poland
- Romania
- U.S.S.R.
- Vietnam, North

Other—
- Afghanistan
- Antilles
- Argentina
- Bhutan
- Bolivia
- Brazil
- Cambodia
- Chile
- China, Republic of (Formosa)
- Colombia
- Costa Rica
- Cuba
- Dominican Republic
- Ecuador
- El Salvador
- Ethiopa
- Guatemala
- Guinea
- Haiti
- Honduras (not British)
- Indonesia
- Iran
- Iraq
- Israel
- Japan
- Korea, Republic of
- Laos
- Lebanon
- Liberia
- Mexico
- Morocco
- Nepal
- New Hebrides
- Nicaragua
- Panama
- Paraguay
- Peru
- Philippines
- Saudi Arabia
- Somalia
- Spain
- Spanish Equatorial (West) Africa
- Sudan
- Surinam
- Syria
- Thailand
- Tunisia
- Turkey
- United Arab Republic
- Uruguay
- Venezuela
- Vietnam, Republic of
- Yemen
- Yugoslavia

(a) Other than United Kingdom.

Recorded trade with the United Kingdom

Since 1908, permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8 August 1907 the Commonwealth Customs Tariffs have provided preferential rates of customs duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on pages 369–70 in this chapter.

The tables following show details of Australia's recorded exports to the United Kingdom by statistical class and for principal products, and recorded imports from the United Kingdom by division of the Australian Import Commodity Classification (based on the Standard International Trade Classification), for each of the years 1963–64 to 1965–66.

VALUE OF RECORDED EXPORTS TO THE UNITED KINGDOM BY STATISTICAL CLASS, AUSTRALIA, 1963–64 TO 1965–66

($'000 f.o.b.)

Class		1963–64	1964–65	1965–66
I.	Foodstuffs of animal origin, etc.	100,409	164,520	133,386
II.	Foodstuffs of vegetable origin, non-alcoholic beverages, etc.	155,228	124,359	136,903
III.	Alcoholic liquors, etc.	1,686	2,254	1,983
IV.	Tobacco, etc.	..	44	1
V.	Live animals and birds	3	5	4
VI.	Animal substances, etc.	160,715	116,670	84,564
VII.	Vegetable substances, etc.	719	397	350
VIII.	Apparel, textiles, etc.	826	441	1,074
IX.	Oils, fats and waxes	4,938	5,079	2,055
X.	Pigments, paints and varnishes	42	60	56
XI.	Rocks, minerals, etc.	15,073	21,084	22,030
XII.	Metals, metal manufactures and machinery	50,777	56,757	65,187
XIII.	Rubber and leather, etc.	5,166	4,768	5,786
XIV.	Wood and wicker, etc.	688	731	838
XV.	Earthenware, etc.	202	28	32
XVI.	Paper and stationery	831	1,228	1,101
XVII.	Jewellery, etc.	1,831	1,880	3,280
XVIII.	Optical, surgical and scientific instruments	2,347	2,624	2,342
XIX.	Chemicals, medicinal products, essential oils, fertilisers	2,085	2,302	2,261
XX.	Miscellaneous	4,368	4,120	2,466
XXI.	Silver	1,540	251	300
	Total merchandise exports	*509,474*	*509,602*	*465,999*
XXII.	Non-merchandise	2,514	6,624	7,359
	Total recorded exports	**511,988**	**516,226**	**473,358**

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE TO THE UNITED KINGDOM, 1963–64 TO 1965–66

Article		Quantity			Value ($'000 f.o.b.)		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Butter	tons	74,361	75,695	61,311	44.676	49,655	38,891
Cheese	,,	13,059	16,061	2,548	5,236	7,183	4,029
Copper and copper based alloys	'000 cwt	5	5	4	1,326	1,477	897
Dynamo electrical machinery and electrical appliances		..	..	..	404	569	748
Eggs		..	..	..	1,716	3,108	2,085
Fruit, dried	tons	28,206	28,118	35,628	9.684	9.592	12,041
,, fresh		..	..	..	14,982	15,183	16.140
,, preserved in airtight containers	tons	106,801	43,696	88,552	28,592	20,834	24,639
Grains and cereals—							
Barley	tons	112,467	38,114	34.761	4.924	1.781	1,808
Flour (wheaten) plain white	tons(*a*)	48.743	45.563	32,935	2.888	2,759	2,004
Wheat	,,	753,923	512,470	623,929	40.376	26.698	32,499
Other		..	..	..	2,310	3,044	2.799
Hides and skins		..	..	..	6,332	5,277	3,732
Iron and steel		..	..	..	5,859	1,437	2,044
Lead bullion	tons	60,715	36,275	66.665	13.452	12,196	19,993
,, pig	,,	76,631	83,565	77,124	13,358	24,061	18,620
Lead and silver-lead ores and concentrates	'000 cwt	525	117	198	3.470	928	1,429
Lead and zinc slags and residues	,,	13	21	12	133	220	201
Leather		..	..	..	4,630	4.169	5,150
Machines and machinery (other than dynamo electrical)		..	..	..	1,944	2,267	2,354

(*a*) 2,000 lb.

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE TO THE UNITED KINGDOM, 1963–64 TO 1965–66—*continued*

Article		Quantity			Value ($'000 f.o.b.)		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Meats preserved by cold process—							
Beef and veal	tons	36,961	107,027	80,444	20,860	64,847	54,619
Lamb	"	13,005	17,052	8,458	4,982	7,051	3,410
Mutton	"	5,350	11,617	3,747	1,636	5,053	1,686
Rabbit and hare		..	..	..	3,204	3.338	3,761
Meats, tinned	"	10,119	13,777	11,031	5,334	7,637	5,931
Milk and cream	'000 lb	8,691	9,048	5,175	1.202	1,414	926
Sugar (cane)	tons	422,058	402,861	453,362	49,496	42,722	43,762
Tallow, inedible	"	10,568	16,135	3,594	1,228	2,488	536
Titanium and zirconium ores and concentrates	'000 cwt	3,208	4 526	5,170	3,017	4,312	4,907
Wine fermented	'000 gal	1,054	1,412	1,250	1,610	2,127	1,873
Wool	'000 lb	247,586	206,309	149,264	153,528	110,015	79,857
Zinc bars, etc.	tons	21,750	27 094	21,362	4,488	7,735	5,834
Zinc ores and concentrates	'000 cwt	3,136	2,971	3,494	7,222	10,700	11,541
All other articles		..	..	..	39,869	41,606	53,062
Total		..	..	..	503,968	503,483	463,808

VALUE OF RECORDED IMPORTS OF UNITED KINGDOM ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION 1963–64 TO 1965–66(*a*)

($'000)

Division no.	Description	1963–64	1964–65	1965–66
00	Live animals	469	376	503
01	Meat and meat preparations	77	140	84
02	Dairy products and eggs	24	26	26
03	Fish and fish preparations	5,542	6,242	7,397
04	Cereals and cereal preparations	410	455	651
05	Fruit and vegetables	306	812	825
06	Sugar and sugar preparations and honey	505	561	660
07	Coffee, tea, cocoa, spices and manufactures thereof	470	375	353
08	Feeding stuff for animals (excluding unmilled cereals)	11	11	215
09	Miscellaneous preparations chiefly for food	190	250	426
11	Beverages	7,787	8,853	9,100
12	Tobacco and tobacco manufactures	1,019	1,240	1,377
21	Hides, skins and fur skins, undressed	98	79	88
22	Oil seeds, oil nuts and oil kernels	44	80	56
23	Crude rubber (including synthetic and reclaimed)	493	409	705
24	Wood, timber and cork	137	147	56
25	Pulp and waste paper	66	5	3
26	Textile fibres and their waste	6,237	6,690	5,503
27	Crude fertilisers and crude minerals (excluding coal, petroleum and precious stones)	1,648	1,527	1,348
28	Metalliferous ores and metal scrap	316	382	79
29	Crude animal and vegetable materials, n.e.s.	1,294	1,450	822
32	Coal, coke and briquettes	2,067	2,084	1
33	Petroleum and petroleum products			2,035
34	Petroleum gases and other gaseous hydrocarbons	1	1	..
41	Animal oils and fats	896	911	112
42	Fixed vegetable oils and fats			513
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin			272
51	Chemical elements and compounds	(*b*)	(*b*)	20,825
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	(*b*)	(*b*)	154

VALUE OF RECORDED IMPORTS OF UNITED KINGDOM ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION 1963–64 TO 1965–66(*a*)—*continued*

($'000)

Division no.	Description	1963–64	1964–65	1965–66
53	Dyeing, tanning and colouring materials	5,740	5,993	6,478
54	Medicinal and pharmaceutical products	13,821	16,275	14,093
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	4,104	4,565	4,518
56	Fertilisers, manufactured	72	913	389
57	Explosives and pyrotechnic products	1,867	2,725	1,513
58	Plastic materials, regenerated cellulose and artificial resins	(*c*) 48,552	(*c*) 56,805	26,372
59	Chemical materials and products, n.e.s.			13,937
61	Leather, leather manufactures, n.e.s., and dressed fur skins	1,104	1,378	1,671
62	Rubber manufactures, n.e.s.	8,366	11,232	10,771
63	Wood and cork manufactures (excluding furniture)	618	948	711
64	Paper, paperboard and manufactures thereof	13,051	11,116	11,512
65	Textile yarn, fabrics, made-up articles and related products	50,099	57,244	47,924
66	Non-metallic mineral manufactures, n.e.s.	17,231	19,826	18,539
67	Iron and steel	20,096	24,793	21,913
68	Non-ferrous metals	8,565	13,192	8,539
69	Manufactures of metal, n.e.s.	347,313	392,570	25,641
71	Machinery, other than electric			200,363
72	Electric machinery, apparatus and appliances			67,242
73	Transport equipment (including warships, and military aircraft)			121,044
81	Sanitary, plumbing, heating and lighting fixtures and fittings	1,577	1,919	1,665
82	Furniture	750	880	1,020
83	Travel goods, handbags and similar articles	900	1,158	416
84	Clothing and clothing accessories and articles of knitted or crocheted fabric	5,206	5,647	6,142
85	Footwear, gaiters, and similar articles and parts therefor	734	681	744
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	13,791	17,103	23,596
89	Miscellaneous manufactured articles, n.e.s.	37,861	40,484	37,883
9(*a*)	Commodities and transactions not classified according to kind	19,180	20,359	22,865
	Total merchandise imports	*650,708*	*740,911*	*751,691*
9(*b*)	Non-merchandise specie	8,360	20,501	7,060
	Grand total	**659,068**	**761,412**	**758,751**

(*a*) Figures for 1963–64 and 1964–65 are estimated only. Estimates for those divisions which have been grouped are not available. (*b*) Included with divisions 58 and 59. (*c*) Includes divisions 51 and 52.

Recorded trade with eastern countries

The values of recorded imports from, and recorded exports to, eastern countries during the years 1963–64 to 1965–66 are shown in the following table, and tables on page 403 provide commodity classifications of this trade.

VALUE OF RECORDED TRADE OF AUSTRALIA WITH EASTERN COUNTRIES BY COUNTRY OF ORIGIN OR CONSIGNMENT, 1963–64 TO 1965–66

($'000 f.o.b.)

Country	Imports			Exports		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Brunei	9,702	7,232	9,353	172	125	213
Burma	154	72	91	5,582	5,114	4,165
Cambodia	6	2	30	84	296	134
Ceylon	17,158	17,277	17,563	14,314	18,671	17,408
China, Republic of (Formosa)	2,868	4,355	4,270	7,252	8,137	16,227
China (mainland)	16,356	22,862	23,460	168,190	135,633	106,541
Hong Kong	18,826	24,414	25,358	50,194	54,757	58,774
India	34,610	40,909	35,012	35,434	55,400	28,001
Indonesia	55,438	64,034	61,763	9,648	7,431	5,359
Japan	162,468	258,574	280,173	487,810	440,740	470,410
Korea (North)	96	86	..	2,298	2,305	5,446
Korea, Republic of	798	774	1,761	6,450	3,972	4,849
Laos	..	16	..	50	2	127
Macao	80	85	55	10	18	11
Malaysia(*a*)	29,608	(*a*)52,322	(*a*)31,924	32,080	(*a*)82,917	(*a*)49,770
Nepal	8	14	1	2	2	3
Pakistan	13,960	13,188	16,390	8,028	9,274	7,383
Philippines	2,140	3,242	2,518	20,734	20,920	23,990
Singapore(*b*)	6,830	(*b*)	(*b*)3,699	36,996	(*b*)	(*b*)34,004
Thailand	986	1,139	1,150	10,244	13,855	15,573
Timor	4	..	55	284	208	300
Vietnam (North)	..	1	..	18	155	65
Vietnam, Republic of	42	49	41	1,488	2,617	6,520
Total	**372,138**	**510,647**	**514,667**	**897,362**	**862,549**	**855,273**

(*a*) Includes Singapore from 1 July 1964 to 30 September 1965. (*b*) *See* note (*a*).

VALUE OF EXPORTS OF PRINCIPAL ARTICLES TO EASTERN COUNTRIES AUSTRALIA, 1965-66

($'000 f.o.b.)

Article	Ceylon	China (mainland)	Hong Kong	India	Indonesia	Japan	Malaysia	Pakistan	Singapore
Animal (except marine) oils and fats	658	782	95	64	..	581	616	1,243	96
Butter	812	..	944	19	14	536	1,245	..	1,069
Cheese	166	..	151	64	11	2,362	132	2	128
Coal	77	..	448	..	..	59,476	83	154	33
Copper	3	..	1,183	311	..	13,632	22	293	60
Fruit, fresh or preserved	..	..	827	..	6	..	1,224	..	1,636
Grains and cereals—									
Wheat	22	100,381	3,918	9,660	..	18,679	5,306	2,234	6,311
Flour (wheaten), plain white	10,352	1	91	9	235	..	2,101	..	130
Other	53	..	513	23	7	5,395	1,775	..	730
Infants' and invalids' foods	289	..	654	1	15	19	2,001	1	603
Leather	38	49	1,198	35	2	41	271	..	334
Machines and machinery	539	58	1,229	615	593	526	4,314	695	1,259
Meats, all kinds	397	11	1,143	53	638	16,106	1,747	8	2,921
Metals and metal manufactures except zinc bars, etc.	479	1,023	4,128	4,399	767	12,073	3,905	584	2,553
Milk and cream	994	5	340	994	268	535	4,298	39	1,003
Petroleum oils	..	..	6	..	78	1,501	427	..	3,069
Sugar—from cane (raw)	..	..	2	..	1	18,109	3,336	..	..
Wool	..	3,475	8,393	5,441	3	259,735	..	1,015	..
Zinc bars, blocks, etc.	19	15	695	4,290	11	49	366	342	434
All other articles	2,510	741	32,816	2,023	2,710	61,055	16,601	773	11,635
Total	**17,408**	**106,541**	**58,774**	**28,001**	**5,359**	**470,410**	**49,770**	**7,383**	**34,004**

VALUE OF RECORDED TRADE OF AUSTRALIA WITH EASTERN COUNTRIES: IMPORTS BY SECTION OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, EXPORTS OF PRINCIPAL ARTICLES, 1963-64 TO 1965-66

($'000 f.o.b.)

Section no.	Imports			
	Description	1963–64	1964–65	1965–66
0	Food and live animals	33,655	38,645	41,399
1	Beverages and tobacco	113	217	77
2	Crude materials, inedible except fuels .	39,890	51,883	38,850
3	Mineral fuels, lubricants and related materials . .	66,788	75,848	80.164
4	Animal and vegetable oils and fats . .	5,085	3,328	3,474
5	Chemicals . . .	15,782	16,115	21,489
6	Manufactured goods classified chiefly by material . .	172,257	267,042	199,194
7	Machinery and transport equipment .			74,062
8	Miscellaneous manufactured articles .	28,962	38,651	43,806
9(*a*)	Commodities and transactions of merchandise trade not elsewhere classified .	7,483	10,518	7,393
	Total merchandise imports . .	370,015	502,247	509,908
9(*b*)	Non-merchandise .	2,123	8,400	4,759
	Grand total .	**372,138**	**510,647**	**514,667**

Exports			
Article	1963–64	1964–65	1965–66
Animal (except marine) oils and fats . .	7,580	8,526	6,007
Butter	5,074	4,660	5,135
Cheese	2,864	2,660	4,045
Coal	31,242	49,360	60,781
Copper	13,512	3,622	15,730
Fruit, fresh or preserved	4,502	4,626	4,098
Grains and cereals—			
Wheat	182,268	180,726	156,041
Flour (wheaten), plain white . . .	20,686	22,024	13,572
Other . . .	24,494	22,876	12,436
Infants' and invalids' foods . . .	4,922	5,828	5,592
Leather . . .	1,498	1,854	2,050
Machines and machinery . . .	15,860	16,514	17,029
Meats, all kinds .	16,072	18,582	24,738
Metals and metal manufactures except zinc bars, etc. . .	50,392	43,578	41,516
Milk and cream .	12,990	16,914	12,488
Petroleum oils . .	8,060	7,600	5,530
Sugar—from cane (raw)	55,848	38,416	21,448
Wool . . .	345,110	284,638	289,090
Zinc bars, blocks, etc.	8,538	13,884	10,690
All other articles .	85,850	115,661	147,257
Total . .	**897,362**	**862,549**	**855,273**

VALUE OF RECORDED IMPORTS FROM EASTERN COUNTRIES: BY SECTION OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION 1965-66

($'000 f.o.b.)

Section no.	Description	Brunei	Ceylon	China (mainland)	Hong Kong	India	Indonesia	Japan	Malaysia	Pakistan	Singapore
0	Food and live animals. . .	..	16,441	1,987	711	6,897	4,532	8,235	1,160	17	82
1	Beverages and tobacco . .	..	..	1	6	3	30	14	..	..	..
2	Crude materials, inedible, except fuels	9	622	2,625	501	1,878	138	5,668	22,062	3,378	61
3	Mineral fuels, lubricants and related products .	9,343	..	3	548	420	56,678	4,390	5,488	..	3,294
4	Animal and vegetable oils and fats	..	17	497	18	196	3	1,931	779	..	33
5	Chemicals . .	..	13	1,148	213	278	177	19.289	40	3	11
6	Manufactured goods classified chiefly by material .	..	83	13,131	9,623	24,273	18	132,535	1,870	12,601	38
7	Machinery and transport equipment . .	..	..	192	836	236	1	72,660	13	9	32
8	Miscellaneous manufactured articles . .	..	2	3,346	12,292	338	1	26,489	87	266	86
9(*a*)	Commodities and transactions of merchandise trade not elsewhere classified . .	..	381	520	477	444	159	4,852	121	106	21
	Total merchandise imports . .	9,352	17,559	23,450	25,225	34,963	61,737	276,063	31,620	16,380	3,658
9(*b*)	Non-merchandise .	1	4	10	133	49	26	4,110	304	10	41
	Grand total .	9,353	17,563	23,460	25,358	35,012	61,763	280,173	31,924	16,390	3,699

Recorded overseas trade at customs ports

The following table shows the value of recorded imports and exports at customs ports of Australia during the year 1965–66, and the totals for each State and Territory.

VALUE OF RECORDED OVERSEAS TRADE: CUSTOMS PORTS AUSTRALIA, 1965-66

($'000 f.o.b.)

Port	Imports	Exports
New South Wales—		
Sydney	1,054,852	523,551
Kingsford-Smith airport	82,007	69,796
Coffs Harbour (incl. Ballina)	. .	786
Botany Bay (Kurnell)	54,360	1,679
Newcastle (incl. Port Stephens)	24,189	109,958
Port Kembla	29,324	75,436
Parcels post, Sydney	12,871	(*a*)
Total, New South Wales	*1,257,603*	*781,206*
Victoria—		
Melbourne	895,112	654,626
Melbourne airport	46,876	4,003
Geelong	62,196	89,677
Portland	2,914	19,757
Parcels post, Melbourne	10,262	(*a*)
Total, Victoria	*1,017,360*	*768,063*
Queensland—		
Brisbane	215,108	271,510
Brisbane airport	3,771	1,536
Bowen	3	5,152
Bundaberg	15	2,192
Cairns (incl. airport)	2,204	21,074
Gladstone	7,732	20,508
Innisfail	2	12,446
Mackay	2,185	45,472
Maryborough (incl. Urongan)	156	4
Rockhampton (incl. airport and Port Alma)	1,229	17,712
Thursday Island	54	468
Townsville (incl. airport)	6,529	61,139
Weipa	200	3,384
Parcels post, Brisbane	1,161	(*a*)
Total, Queensland	*240,349*	*462,597*
South Australia—		
Port Adelaide (incl. Stenhouse Bay)	157,120	177,068
Adelaide city (incl. airport)	3,581	
Port Stanvac	22,666	336
Ardrossan	. .	7,094
Cape Thevenard	. .	4,566
Edithburgh	. .	101
Port Augusta	1	4,693
Port Lincoln	1,361	16,720
Port Pirie (incl. Port Germein)	52	77,641
Port Wallaroo	1,146	5,546
Whyalla	10,155	2,511
Parcels post, Adelaide	2,074	(*a*)
Total, South Australia	*198,156*	*296,276*
Western Australia—		
Fremantle	120,707	232,381
Perth (incl. airport)	3,683	883
Kwinana	40,008	8,516
Albany	1,874	26,359
Broome	6	1,809
Bunbury	2,413	12,486
Busselton	. .	319
Derby	6	320
Esperance	371	1,652
Exmouth (North West Cape)	. .	7
Geraldton	1,751	24,514
King Bay (Dampier)	1,633	. .
Point Samson (incl. Roebourne)	. .	474
Port Hedland	1,819	2,084
Wyndham	99	2,451
Yampi Sound (Cockatoo Island)	. .	149
Parcels post, Perth	1,320	(*a*)
Total, Western Australia	*175,690*	*314,404*
Tasmania—		
Hobart (incl. airport)	21,660	51,179
Burnie (incl. airport)	7,836	13,417
Devonport (incl. airport and Ulverstone)	920	6,586
Launceston (incl. airport and Beauty Point)	13,169	20,825
Parcels Post	(*b*)	(*b*)
Total, Tasmania	*43,585*	*92,007*
Northern Territory—		
Darwin	5,596	6,398
Australian Capital Territory—		
Canberra	1,153	1
Total recorded trade	**2,939,492**	**2,720,953**

(*a*) Included with main port. (*b*) Included with respective port.

In the table above exports are shown against the port from which the goods were finally shipped overseas.

Ships' and aircraft stores

The value of ships' and aircraft stores loaded on overseas ships and aircraft are excluded from exports. The value of these stores is shown in the table below for each of the years 1963–64 to 1965–66.

VALUE OF STORES LOADED ON BOARD OVERSEAS VESSELS AND AIRCRAFT: AUSTRALIA 1963–64 TO 1965–66

($'000)

Stores	1963–64	1964–65	1965–66
Cigarettes, cigars and tobacco	562	751	814
Fuel, lubricating oil and lubricants	18,264	18,599	21,142
Foodstuffs for human consumption—			
Meats	2,628	3,416	3,716
Sugar	82	50	36
Milk and cream, preserved	64	61	60
Butter	262	331	254
Cheese	48	66	65
Eggs in shell	378	408	471
Seafoods	378	433	462
Prepared grains	168	218	236
Vegetables	470	692	620
Fruit	298	339	306
Other	440	437	468
Fodder	188	159	159
Alcoholic beverages	1,190	1,387	1,513
Coal	2	221	1
Other ships' stores	4,448	2,791	3,828
Total	29,870	30,359	34,151

Movement of bullion and specie

The following table shows the values of gold and silver bullion and specie, and of bronze specie, imported into, and exported from, Australia during each of the years 1963–64 to 1965–66.

VALUES OF RECORDED IMPORTS AND EXPORTS OF BULLION AND SPECIE AUSTRALIA, 1963–64 TO 1965–66

($ f.o.b.)

	Imports			Exports		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Gold—Bullion	4,581,410	4,058,438	4,177,183	14,289,380	18,404,346	24,417,466
Specie	15,248	75,782	9,790	..	..	720
Total, gold	*4,596,658*	*4,134,220*	*4,186,973*	*14,289,380*	*18,404,346*	*24,418,186*
Silver—Bullion	144,616	108,514	141,945	5,281,322	1,726,956	475,666
Specie	40,806	55,100	620,346	571,642	501,198	360,285
Total, silver	*185,422*	*163,614*	*762,291*	*5,852,964*	*2,228,154*	*835,951*
Other (including bronze and cupro-nickel)—Specie	2,084	102	741,709	3,750	3,900	722,914
Total—						
Australian produce	..	..	..	20,117,296	20,575,744	25,957,620
Re-exports	..	..	..	28,798	60,656	19,431
Grand total	**4,784,164**	**4,297,936**	**5,690,973**	**20,146,094**	**20,636,400**	**25,977,051**

The following table shows the imports and exports of bullion and specie from and to various countries during the year 1965–66.

VALUES OF AUSTRALIAN RECORDED IMPORTS AND EXPORTS OF BULLION AND SPECIE, BY COUNTRY OF ORIGIN OR CONSIGNMENT, 1965–66

($ f.o.b.)

Country	Imports			Exports		
	Bullion	Specie	Total	Bullion	Specie	Total
Austria	..	2,642	2,642	..	..	..
Canada	..	7,284	7,284	282	..	282
Cyprus	..	82	82	..	..	..
Fiji	3,342,502	34	3,342,536	4,510	210	4,720
France	416	..	416	..	..	..
Germany, Federal Republic of	19,883	..	19,883	..	..	..
Gilbert and Ellice Is.	..	..	..	..	17,200	17,200
Greece	..	180	180	..	..	..
Hong Kong	..	..	..	24,141,400	..	24,141,400
Iran	..	62	62	..	..	..
Ireland	..	56	56	..	..	..
Italy	38	16	54	..	..	..
Lebanon	..	42	42	..	26	26
Malaysia	..	150	150	..	..	..
Nauru	..	..	..	..	3,640	3,640
New Hebrides	..	..	..	..	520	520
New Zealand	53,507	150,034	203,541	424,988	3,202	428,190
Norfolk Is.	..	..	..	..	1,112	1,112
Papua and New Guinea	860,196	2,159	862,355	..	979,140	979,140
Sierra Leone	..	1,556	1,556	..	..	..
Solomon Is.	..	..	..	..	58,500	58,500
Singapore	..	400	400	..	..	..
Switzerland	..	5,280	5,280	..	..	..
Tonga	..	..	..	..	800	800
United Kingdom	41,810	941,112	982,922	312,426	18,849	331,275
United States of America	776	893	1,669	9,526	720	10,246
Australia re-imported	..	259,863	259,863	..	..	..
Total	4,319,128	1,371,845	5,690,973	24,893,132	1,083,919	25,977,051

Ratios of net customs revenue to value of total merchandise imports

The following table shows the ratios of net customs revenue collected, including and excluding net primage, to value of total merchandise imports during the years 1961–62 to 1965–66. The calculations are based on the assumption that the total value of clearances for home consumption approximated the value of total recorded imports during the same period. For particulars of customs revenue collections *see* the chapter Public Finance.

RATIOS OF NET CUSTOMS REVENUE COLLECTED TO VALUE OF TOTAL MERCHANDISE IMPORTS: AUSTRALIA, 1961–62 TO 1965–66

(Per cent)

Ratio of—	1961–62	1962–63	1963–64	1964–65	1965–66
Net customs revenue collected (excluding net primage) to value of total merchandise imports	9.4	9.5	9.6	9.1	9.2
Net customs revenue collected plus net primage to value of total merchandise imports	9.6	9.7	9.8	9.3	9.4
Net customs revenue collected (excluding net primage) to value of dutiable goods only	22.4	22.5	22.3	22.9	23.6

Imports and exports of various countries

In the following table the figures, which are expressed in Australian currency, relate as nearly as possible to imports cleared for home consumption in the various countries specified and to exports of their domestic products. These figures, however, do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The countries listed are not necessarily all the important trading countries of the world, but those important countries for which comparable statistics are available. Information for countries other than Australia has been extracted from publications of the United Nations. In making comparisons the qualifications referred to on page 390 should be borne in mind.

VALUES OF IMPORTS CLEARED FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS (MERCHANDISE ONLY(*a*)): VARIOUS COUNTRIES, 1966

Country	Imports cleared c.i.f.	Exports f.o.b.	Total	Trade per head of population		
				Imports cleared	Exports	Total
	$m	$m	$m	$	$	$
United States of America	(*b*) 22,744	*c d* 26,799	49,543	115.54	136.15	251.69
Germany, Federal Republic of	16,093	17,978	34,071	279.95	312.74	592.69
United Kingdom	14,479	(*d*) 12,611	27,090	263.42	229.44	492.86
France	10,603	9,730	20,333	214.46	196.81	411.27
Japan	(*e*) 8,503	8,729	17,232	86.01	88.29	174.30
Canada	(*b*)(*e*)8,148	8,488	16,636	409.05	426.13	835.18
Italy	7,653	7,171	14,824	147.57	138.28	285.85
Netherlands	7,159	6,027	13,186	574.79	483.90	1,058.69
Belgium-Luxembourg	6,272	6,004	12,276	635.98	608.81	1,244.79
Sweden	(*e*) 4,082	3,824	7,906	522.80	489.75	1,012.55
Switzerland	3,522	2,929	6,451	582.19	484.16	1,066.35
Australia(*f*)	(*b*) 2,915	(*c*)(*d*)2,578	5,493	254.72	225.27	479.99
Denmark	(*e*) 2,681	2,191	4,872	558.99	456.82	1,015.81
Austria	2,078	1,504	3,582	285.05	206.31	491.36
Norway	(*e*) 2,145	1,392	3,537	571.54	370.91	942.45
Spain	3,206	1,120	4,326	100.59	35.14	135.73
Finland	(*e*) 1,541	1,344	2,885	332.18	289.72	621.90
Portugal	900	549	1,449	97.63	59.56	157.19
Greece	1,092	362	1,454	126.80	42.03	168.83
Turkey	647	438	1,085	19.67	13.31	32.98

(*a*) Includes silver. (*b*) f.o.b. (*c*) Includes exports of foreign aid. (*d*) Excludes re-exported goods. (*e*) Covers goods imported as distinct from goods cleared for home consumption. (*f*) Year ended June 1966.

Total recorded overseas trade in calendar years

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show estimates of total Australian recorded imports and exports for each of the calendar years 1965 and 1966.

VALUE OF TOTAL RECORDED OVERSEAS TRADE IN CALENDAR YEARS AUSTRALIA, 1965 AND 1966

($'000 f.o.b.)

Year	Merchandise		Non-merchandise		Total recorded	
	Imports	Exports	Imports	Exports	Imports	Exports
1965	2,959,404	2,603,723	55,789	79,513	3,015,193	2,683,236
1966	2,853,901	2,744,164	41,197	88,959	2,895,098	2,833,123

Excise

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of customs and excise revenue are shown in the chapter Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1964–65 and 1965–66.

QUANTITY OF SPIRITS, BEER, TOBACCO, ETC. ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA, 1964-65 AND 1965-66

Article	1964–65	1965–66	Article	1964–65	1965–66
	'000 gallons	'000 gallons	Cigarettes—machine-made	'000 lb 47,328	'000 lb 48,747
Beer	264,889	270,546		'000 gallons	'000 gallons
	'000 proof gallons	'000 proof gallons	Petrol—		
			Aviation petrol (by-law)(*a*)	9,391	12,932
Spirits—			Aviation petrol (non by-law)(*a*)	228	(*b*)
Brandy	1,009	955	Petrol, n.e.i.(*a*)	1,494,362	1,593,253
Gin	372	346	Total petrol	1,503,981	1,606,185
Whisky	359	330			
Rum	565	521	Aviation turbine fuel(*a*)	67,553	80,224
Liqueurs	75	67			
Other	128	135	Diesel fuel	90,990	113,426
Total spirits (potable)	2,508	2,354	Playing cards	doz packs 105,595	doz packs 113,780
Spirits for—			Cigarette papers and tubes	60 papers or tubes '000 61,773	60 papers or tubes '000 58,981
Fortifying wine	2,185	2,248			
Industrial or scientific purposes	352	382		8,640 matches	8,640 matches
Manufacture of—					
Essences	118	126	Matches	3,503,737	3,474,931
Scents and toilet preparations	104	99		'000 tons	'000 tons
Vinegar	248	218	Coal	17,972	18,686
Tobacco	'000 lb 8,922	'000 lb 8,334	Canned fruit	'000 doz containers 7,032	'000 doz containers 6,511
Cigars	141	130	Cathode ray tubes	'000 (*c*) 51	. .

(*a*) As from July 1964 includes supplies to Commonwealth Government on which excise was paid. During 1965–66 refunds were made on 40,714,000 gallons. (*b*) Not recorded separately. (*c*) Operative to 12 August 1964.

OVERSEAS INVESTMENT BY PRIVATE INVESTORS

Surveys of overseas investment have been conducted since 1947–48 to obtain particulars of certain types of private capital flows to and from Australia. The surveys, when supplemented by other information, provide statistics of overseas investment in companies in Australia and in Australian public authority securities repayable in Australian currency, as well as statistics of Australian investment in companies overseas and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the surveys.

Certain types of private overseas investment are not included in the statistics which follow. Investment in real estate (except when made through companies) and loans between Australian individuals and non-resident individuals are not covered. Nor are changes in short-term liabilities between exporters and importers in Australia and overseas covered, except in so far as they arise from exports and imports between branches or subsidiaries and their home offices—in this case they are included in the figures of investment in branches or subsidiaries.

In the tables which classify investment in Australia according to country of origin, the investment is shown as an inflow from the country which is the immediate source of the capital. Income payable overseas is classified on a similar basis, i.e. it is classified to the country to which it is directly payable.

Remittances between Australia and overseas by Australian life insurance companies are regarded as capital transactions made to bring assets located in overseas countries into line with commitments in those countries, and are included as a flow of investment between Australia and overseas. Similar considerations apply to overseas life insurance companies with branches in Australia.

The following are explanatory notes relating to some of the terms used in the tables.

Companies. In these statistics the term 'companies' relates to both incorporated and unincorporated businesses.

Overseas. For the purpose of these statistics. Papua and New Guinea and the other external Territories under the control of Australia are regarded as overseas countries.

Portfolio investment and institutional loans. Investment other than direct investment, including loans raised overseas from financial institutions and other companies which have no direct investment in the borrowing company.

Subsidiaries. For the purpose of these statistics this term is applied to all companies in which there is a 'direct' overseas holding of ordinary shares (or voting stock). A holding is treated as 'direct' when there is ownership of twenty-five per cent or more of a company's ordinary shares (or voting stock) by one company or a number of companies incorporated in one country, or ownership of fifty per cent or more of a company's ordinary shares (or voting stock) by individuals or companies in one country.

Undistributed profits. This term refers, in the case of Australian subsidiaries, to the equity of the overseas parent in the net earnings for taxation purposes of the Australian company, less tax (or tax provision) and less dividends declared. In the case of overseas subsidiaries of Australian companies, this term represents the equity of the Australian parent in the book value of the net earnings of the subsidiary after tax, less dividends paid or payable.

Unremitted profits. For these statistics this represents the net earnings of branches during the year, after tax, less remittances by the branches to their home offices during the year of net earnings and interest (irrespective of the period to which the earnings and interest relate). 'Net earnings' of Australian branches of overseas companies are, in general, based on the value of their income for taxation purposes.

The annual bulletin *Insurance and Other Private Finance* and the *Annual Bulletin of Overseas Investment: Australia* contain additional figures relating to overseas investment, including a longer range of years covered, and also a more detailed description of the figures.

Private overseas investment in companies in Australia and investment income payable overseas by companies in Australia.

The inflow of private overseas investment in companies in Australia since 1961–62, and a classification by country of origin, are shown in the following two tables.

ANNUAL INFLOW OF PRIVATE OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA, BY CATEGORY OF INVESTMENT AND TYPE OF COMPANY(*a*)
1961–62 TO 1964–65

($ million)

Year	Annual inflow of direct private overseas investment in companies in Australia					Portfolio investment and institutional loans (*b*)	Total
	Australian branches		Australian subsidiaries		Total		
	Unremitted profits	Other investment	Undistributed profits	Other direct investment			
1961–62 .	9	44	57	110	220	76	296
1962–63 .	16	5	90	267	379	83	462
1963–64 .	23	30	110	240	403	28	431
1964–65 .	12	57	108	344	521	43	564
1965–66 .	13	72	102	255	442	222	664

(*a*) Increases in investment by some overseas investors are offset against withdrawals of investment by other overseas investors. (*b*) Partly estimated.

ANNUAL INFLOW OF PRIVATE OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA, BY DOMICILE OF INVESTOR AND CATEGORY OF INVESTMENT(a) 1961-62 TO 1965-66

($ million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other countries	Total
Undistributed income(*b*)—					
1961–62 . .	43	3	16	4	66
1962–63 . .	71	1	27	7	106
1963–64 . .	80	3	45	5	133
1964–65 . .	69	3	40	8	120
1965–66 . .	58	3	49	5	115
Other investment(*c*)—					
1961–62 . .	82	7	126	15	230
1962–63 . .	136	4	157	58	356
1963–64 . .	104	6	148	40	298
1964–65 . .	186	11	194	53	444
1965–66 . .	200	. .	256	93	549
Total—					
1961–62 . .	125	10	142	19	296
1962–63 . .	207	5	184	65	462
1963–64 . .	184	9	193	45	431
1964–65 . .	255	14	234	62	564
1965–66 . .	258	2	305	98	664

(*a*) *See* footnote (*a*) to preceding table. (*b*) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries. (*c*) Consists of other direct investment in Australian branches and subsidiaries, and portfolio investment and institutional loans

The next two tables show investment income payable overseas by companies in Australia, and the countries to which it is payable.

INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA BY CATEGORY OF INCOME AND TYPE OF COMPANY, 1961-62 TO 1965-66

($ million)

Year	Income payable on direct investment						Income paid on portfolio investment and institutional loans			Total
	Australian branches		Australian subsidiaries							
				Distributed profits						
	Un-remitted profits	Remitted profits and interest	Undistributed profits	Dividends payable	Interest remitted	Total	Dividends	Interest	Total	
1961–62 .	9	37	57	72	(*a*)	175	20	(*a*)	20	201
1962–63 .	16	39	90	81	(*a*)	226	26	(*a*)	26	259
1963–64 .	23	42	110	70	7	252	29	4	33	285
1964–65 .	12	47	108	78	12	257	32	5	37	294
1965–66 .	13	47	102	85	14	261	35	7	42	303

(*a*) Separate details of interest payments are not available for these years. The amount payable by Australian companies (excluding branches of overseas companies) was $6m in 1961–62 and $7m in 1962–63.

INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA BY COUNTRY TO WHICH PAYABLE AND CATEGORY OF INCOME 1961-62 TO 1965-66

($ million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other Countries	Total
Undistributed income (*a*)—					
1961–62 . .	43	3	16	4	66
1962–63 . .	71	1	27	7	106
1963–64 . .	80	3	45	5	133
1964–65 . .	69	3	40	8	120
1965–66 . .	58	3	49	5	115
Other income(*b*)—					
1961–62 . .	(*c*) 59	(*c*) 6	(*c*) 58	(*c*) 6	135
1962–63 . .	(*c*) 69	(*c*) 8	(*c*) 62	(*c*) 7	153
1963–64 . .	77	8	58	9	152
1964–65 . .	92	9	59	13	173
1965–66 . .	108	9	58	12	188
Total income payable overseas—					
1961–62 . .	(*c*) 102	(*c*) 9	(*c*) 74	(*c*) 10	201
1962–63 . .	(*c*) 140	(*c*) 9	(*c*) 89	(*c*) 14	259
1963–64 . .	157	11	103	14	285
1964–65 . .	161	12	100	21	294
1965–66 . .	166	12	108	17	303

(*a*) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries. (*b*) Consists of remitted profits and interest of Australian branches, distributed profits of Australian subsidiaries, and income paid on portfolio investment and institutional loans. (*c*) *See* footnote (*a*) to preceding table.

A classification by broad industry groups of the inflow of direct investment and the income payable overseas on direct investment in 1965–66 is shown in the following table.

INFLOW OF DIRECT PRIVATE OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA AND INCOME FROM DIRECT INVESTMENT PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA, BY INDUSTRY IN WHICH CAPITAL INVESTED, 1965-66

($ million)

Category of investment or income	Primary production and mining	Manufacturing	Other industries	Total
Inflow of direct investment—				
Undistributed income(*a*) . .	15	77	23	115
Other direct investment . .	97	97	134	327
Total	*111*	*173*	*157*	*442*
Income from direct investment payable overseas—				
Undistributed income(*a*) . .	15	77	23	115
Distributed income from direct investment(*b*)	9	86	51	146
Total income from direct investment payable overseas . .	*24*	*163*	*74*	*261*

(*a*) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries. (*b*) Consists of remitted profits and interest of Australian branches, and distributed profits of Australian subsidiaries.

Australian investment in companies overseas and investment income receivable from companies overseas

The outflow of Australian investment in companies since 1961–1962 and a classification by country in which the capital was invested are shown in the following two tables.

ANNUAL OUTFLOW OF PRIVATE AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS BY CATEGORY OF INVESTMENT AND TYPE OF COMPANY(*a*) 1961-62 TO 1965-66

($ million)

Year	Annual outflow of direct private Australian investment in companies overseas					Portfolio investment and institutional loans	Total
	Overseas branches		Overseas subsidiaries		Total		
	Unremitted profits	Other	Undistributed profits	Other direct investment			
1961-62 . .	1	8	8	3	20	−4	16
1962-63 . .	. .	−4	9	9	14	−6	8
1963-64 . .	1	3	13	−5	12	−8	4
1964-65 . .	. .	3	20	10	32	−6	26
1965-66 . .	3	3	15	22	42	−4	38

(*a*) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors.

Minus sign (−) denotes inflow.

ANNUAL OUTFLOW OF PRIVATE AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS BY COUNTRY IN WHICH CAPITAL INVESTED AND CATEGORY OF INVESTMENT(*a*), 1961-62 TO 1965-66

($ million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other countries	Total
Undistributed income (*b*)—					
1961-62 . .	1	3	. .	5	9
1962-63 . .	. .	3	. .	6	9
1963-64 . .	−1	9	1	5	14
1964-65 . .	. .	10	. .	10	19
1965-66 . .	. .	9	1	8	18
Other investment(*c*)—					
1961-62 . .	−1	4	−1	5	7
1962-63 . .	1	8	. .	−10	−1
1963-64 . .	−16	9	. .	−3	−10
1964-65 . .	−7	2	. .	12	8
1965-66 . .	2	14	. .	4	20
Total annual outflow—					
1961-62 . .	. .	7	−1	10	16
1962-63 . .	1	11	. .	−4	8
1963-64 . .	−17	18	1	2	4
1964-65 . .	−7	12	. .	21	26
1965-66 . .	3	23	1	11	38

(*a*) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors. (*b*) Unremitted profits of overseas branches plus undistributed profits of overseas subsidiaries of Australian companies. (*c*) Consists of other direct investment in overseas branches and subsidiaries and portfolio investment and institutional loans.

Minus sign (−) denotes inflow.

The next two tables show income from direct investment receivable by Australian companies from companies overseas, and the countries from which it is receivable.

INCOME FROM DIRECT INVESTMENT RECEIVABLE BY AUSTRALIAN COMPANIES FROM COMPANIES OVERSEAS, BY TYPE OF COMPANY, AND CATEGORY OF INCOME, 1961–62 TO 1965–66

($ million)

Year	Overseas branches		Overseas subsidiaries		Total
	Unremitted profits (net)	Remitted profits and interest	Undistributed profits (net)	Dividends and interest receivable	
1961–62	1	5	8	(*a*) 8	(*a*) 22
1962–63 . . .	..	9	9	11	29
1963–64 . . .	1	5	13	13	32
1964–65 . . .	..	4	20	18	41
1965–66 . . .	3	4	15	16	38

(*a*) Excludes interest payments.

INCOME FROM DIRECT INVESTMENT RECEIVABLE BY AUSTRALIAN COMPANIES FROM COMPANIES OVERSEAS, BY COUNTRY FROM WHICH RECEIVABLE AND CATEGORY OF INCOME, 1961-62 TO 1965-66

($ million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other countries	Total
Undistributed income(*a*)—					
1961–62 . .	1	3	..	5	9
1962–63 . .	..	3	..	6	9
1963–64 . .	–1	9	1	5	14
1964–65 . .	..	10	..	10	19
1965–66 . .	..	9	1	8	18
Distributed income from direct investment(*b*)—					
1961–62(*c*) . .	1	7	..	5	13
1962–63 . .	1	9	..	10	20
1963–64 . .	1	7	..	10	18
1964–65 . .	2	11	..	9	22
1965–66 . .	2	7	..	11	20
Total—					
1961–62(*c*) . .	2	10	..	10	22
1962–63 . .	1	12	..	16	29
1963–64 . .	..	16	1	15	32
1964–65 . .	2	21	..	18	41
1965–66 . .	3	16	1	18	38

(*a*) Unremitted profits of overseas branches plus undistributed profits of overseas subsidiaries of Australian companies. (*b*) Consists of remitted profits and interest of overseas branches, and dividends and interest receivable from overseas subsidiaries. (*c*) Excludes interest payments.

Net annual flow of investment

The net annual flow of investment between Australia and overseas, and its classification by country, are shown in the following two tables. In addition to private overseas investment, the annual inflow of overseas investment in Australian public authority securities, net overseas remittances by life insurance companies, and the net change in non-residents' deposits and advances with Australian trading banks, have been incorporated in both tables.

NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEAS COUNTRIES(*a*)
1961-62 TO 1965-66

($ million)

Year	Annual inflow of investment	Annual outflow of investment	Net annual flow
1961–62 . .	309	15	294
1962–63 . .	547	8	539
1963–64 . .	451	9	442
1964–65 . .	548	16	532
1965–66 . .	641	32	609

(*a*) Increases in investment by some overseas investors are offset against withdrawals of investment by other investors.

NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEAS COUNTRIES, BY COUNTRY, 1961–62 TO 1965–66

($ million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other Countries	I.B.R.D. (*a*)	Net change in non-residents' deposits and advances with Australian trading banks(*b*)	Net annual flow
1961–62 . .	123	1	165	19	−16	3	294
1962–63 . .	222	−8	244	67	12	1	539
1963–64 . .	227	−9	175	41	7	1	442
1964–65 . .	211	..	268	46	−1	9	532
1965–66 . .	221	−22	327	87	−7	3	609

(*a*) Particulars are not available of the domicile of securities issued to the International Bank for Reconstruction and Development. (*b*) Particulars are not available of the domicile of the non-residents who have deposits or advances with Australian trading banks.

Minus sign (−) denotes outflow.

BALANCE OF PAYMENTS

Estimates of a country's balance of payments are prepared for the purpose of providing a systematic record in money terms of the economic transactions which take place over a period between that country and all other countries. Such records are essential to the examination of influences which external factors have on the domestic economy. The Australian economy is subject to fairly large fluctuations in export income, and it is also affected in important respects by variations in the level of foreign investment and the demand for imports. Consequently, these estimates have always assumed particular importance in this country.

Official estimates of Australia's balance of payments covering the period 1928–29 to 1930–31 were included in the Appendix to Year Book No. 24, 1931. Except for the war years (1939 to 1945), estimates have since been published annually. Detailed estimates are currently provided twice yearly in the form of a mimeographed publication *Balance of Payments.* This publication brings the estimates forward to the end of the most recent financial year or half-year and, together with a printed volume *The Australian Balance of Payments*, 1928–29 *to* 1950–51, provides also a description of the various items included and the sources from which the information is obtained. A summarised statement of the principal current account items and some identified capital movements is prepared and issued on a quarterly basis in the *Balance of Payments—Quarterly Summary.*

The form in which the Australian estimates are presented follows the pattern originally adopted by the International Monetary Fund. In this presentation a basic distinction is drawn between 'current account' transactions and 'capital account' transactions. Current account transactions are defined as those which involve changes in the ownership of goods or the rendering of services between residents of Australia and the rest of the world. They include such important items as exports, imports, shipping freights, dividends, profits and interest, travel and government expenditure. The current account also includes transfers in the form of personal gifts and government gifts of technical assistance, for which there is no consideration. Capital account transactions are defined as those which involve claims to money and titles to investments between residents of one country and those of another country. Details are shown according to whether the items with which transactions are concerned are classified as assets or liabilities. For practical purposes, items are also broadly divisible into investment items (including overseas investment in companies in Australia and government loans), certain financing transactions, and monetary movements (including transactions with the International Monetary Fund and changes in the level of international reserves).

By definition the balance of payments on current account is always equivalent to the balance on capital account. The net monetary movement is used as a control figure to which the net sum of all other figures must reconcile. However, errors and omissions occur in the estimation of the amounts involved in various items included in both current and capital accounts, and in addition there are timing differences between the statistical recording of trade transactions and certain invisible items, and the relevant foreign exchange transactions. Therefore, in order to preserve the identity between the total shown in the current account and the total shown in the capital account, it is necessary to introduce a 'balancing item'. The 'balancing item' is included in the capital account, but, as mentioned above, it may include discrepancies in the current account, and it does not, as is frequently supposed, include only errors and timing differences related to investment and financing transactions.

Details of the estimates are assembled from a variety of sources of which the following are the more important: (i) statistics of exports and imports obtained from Australian trade statistics; (ii) details of the import valuation adjustment obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia; (iii) information on particular invisible current account items and capital movements obtained by regular inquiry from private organisations and government departments; (iv) details of receipts and payments of foreign exchange provided by the banking system; (v) information on dividends remitted, undistributed income and private investment in companies provided by statistics of overseas investment collected by this Bureau; (vi) information on freight on imports and other items concerned with overseas shipping obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia and a survey of shipping operations conducted by this Bureau; and (vii) information on international reserves supplied by the Reserve Bank of Australia.

Current account

The balance of payments on current account is arranged to show a series of credit items and a corresponding series of debit items. Primarily, entries on the credit side include all current transactions which result in receipts of foreign exchange (for goods and services, investment income or donations), and on the debit side the similar transactions which result in payments of foreign exchange. The principal exceptions to this rule are the amounts shown for undistributed income and where debts incurred for current account items, principally goods, are subsequently capitalised. In respect of these amounts no movement of foreign exchange takes place, the amounts concerned being treated as credits or debits in the relevant sections of the current account, and as corresponding outflows or inflows in the relevant sections of the capital account. A further exception occurs in the case of transfers in kind where no foreign exchange movement takes place. The values of transfers received or provided in kind are shown as credits or debits respectively.

The largest items shown in the current account are exports and imports, and the difference between them represents the balance of visible trade. This is the most important, and usually the most variable, relationship in the balance of payments. *For balance of payments purposes, certain adjustments are made to the recorded trade statistics.* Briefly, these adjustments are made to exclude those transactions for which there is no change of ownership between residents and non-residents of Australia and to include certain transactions for which there has been a change of ownership but for which customs entries are not required. In addition, a valuation adjustment is made to the recorded import statistics in order to remove the overstatement which results from the basis of valuation for customs duty. A full description of the adjustments was provided in Appendix V. of the publication *Balance of Payments*, 1960–61 *to* 1964–65. A full evaluation of the overall position on current account, however, occurs only after the invisible items have been taken into account. The most important of these are the transportation items. Entries appear on both the debit and credit sides, the principal component on the debit side being freight payable overseas on imports into Australia. The principal component on the credit side is expenditure by overseas carriers, which represents mainly overseas ships' expenditure for stevedoring, port charges, etc. incurred in loading and discharging goods at Australian ports, and stores purchased in Australia. The items next in importance are those concerning income from property. Debit entries under this heading include dividends, profits, interest and royalties payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items include undistributed income for which, as mentioned above, no monetary payments occur. The remaining items are smaller than those mentioned above, and include travel, government transactions, transfers (including foreign aid made available by the Australian Government), and, on the credit side, the net value of Australian gold production.

Capital account

On the assets side of the capital account the most important item is Australia's holdings of monetary gold and foreign exchange, usually referred to as international reserves. On the liabilities side the most important items are government loans, I.M.F. transactions and private investment in Australian companies.

Transactions with international monetary and financial agencies appear on both sides of the capital account. On the assets side items 2 and 3 show increases in subscriptions to these institutions, and on the liabilities side items 10 and 11 show corresponding increases in liabilities or changes in liabilities previously incurred. Liabilities comprise, on the one hand, bank balances and special non-negotiable, non-interest bearing securities (payable in Australian currency but convertible by arrangement into foreign currency or gold) related to capital subscriptions to the various agencies and, on the other hand, drawings from the International Monetary Fund.

Changes in overseas investment in companies by Australian residents are shown on the assets side of the capital account (items 6 and 7), and changes in investment in Australian companies by overseas residents are shown on the liabilities side (items 13 (part) and 14). Figures shown for marketing authorities (item 5) represent changes in the estimated value of commodity stocks held overseas or in amounts owed by overseas debtors to the principal Australian marketing authorities.

The balancing item includes errors and omissions and timing differences, referred to on page 415.

Tables—Balance of payments on current and capital accounts

The following tables show, for the three years 1963–64 to 1965–66, particulars of:
(i) the balance of payments on current account;
(ii) the balance of payments on capital account; and
(iii) the balance of payments on current account, by major groups of countries.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA, 1963-64 TO 1965-66

($ million)

	1963–64		1964–65		1965–66p	
1. Exports f.o.b.(*a*)		2,732		2,575		2,629
2. Imports f.o.b.(*a*)		2,237		2,739		2,822
Balance of trade		*495*		*—164*		*—193*
Invisible credits—						
3. Gold production		29		27		25
4. Transportation—						
Expenditure of overseas carriers	179		190		191	
Australian carriers	75		89		100	
		254		279		291
5. Travel		43		54		58
6. Property income—						
Undistributed income	14		20		16	
Royalties and copyrights	3		3		4	
Other	77		95		91	
		94		118		111
7. Government—						
Australian Government receipts	31		27		32	
Foreign government expenditure	31		33		45	
		62		60		77
8. Miscellaneous—						
Business expenses	21		30		29	
Other	22		25		27	
		43		55		56
9. Transfers—						
Immigrants' funds	67		80		86	
Other	33		32		33	
		100		112		119
Total invisible credits		*625*		*705*		*737*

For footnotes *see* next page.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA, 1963-64 TO 1965 66—*continued*

($ million)

	1963–64		1964–65		1965–66p	
Invisible debits—						
10. Transportation(*b*)—						
Freight	253		290		302	
Other	165		194		210	
		418		484		512
11. Travel		102		114		122
12. Property income—						
Public authority interest . .	70		70		71	
Direct investment . . .	119		136		133	
Undistributed income . . .	133		121		126	
Royalties and copyrights . .	40		46		50	
Other	34		38		42	
		396		411		422
13. Government—						
Defence	20		29		39	
Other	22		22		26	
		42		51		65
14. Miscellaneous—						
Business expenses	33		42		51	
Other	34		44		46	
		67		86		97
15. Transfers—						
Government—						
Papua and New Guinea . . .	63		71		90	
Other foreign aid . . .	21		33		35	
Contributions . . .	3		3		4	
Private	61		65		74	
		148		172		203
Total invisible debits . . .		*1,173*		*1,318*		*1,421*
Balance on current account		−53		−777		−877

(*a*) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (*b*) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at $283 million in 1963–64, $333 million in 1964–65 and $353 million in 1965–66.

Minus sign (−) denotes deficit.

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA, 1963-64 TO 1965-66

($ million)

	1963–64		1964–65		1965–66p	
CHANGES IN ASSETS—						
1. International reserves		447		−318		21
2. International Monetary Fund . . .		..		..		89
3. Other international financial agencies . .		3		4		6
4. Other government		52		16		−50
5. Marketing authorities		− 30		61		−38
6. Portfolio investment		− 8		−6		−4
7. Direct investment—						
Branches—Unremitted profits . .	1		..		1	
Other	3		3		3	
Subsidiaries—Undistributed profits .	13		20		15	
Other	−5		9		20	
		12		32		39
8. Life insurance		5		−10		−5
Total, changes in assets		*481*		*−221*		*58*

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA, 1963-64 TO 1965-66—*continued*

($ million)

	1963–64		1964–65		1965–66	
CHANGES IN LIABILITIES—						
9. Government loans—						
International Bank for Reconstruction and Development	7		−1		−7	
Other central government	16		−14		−17	
Local government and semi-governmental	..		−6		−3	
Discounts, etc.	−1		1		2	
		22		−20		−25
10. International Monetary Fund		..		−22		49
11. Other international financial agencies		−5		1		..
12. Foreign banks		−3		1		..
13. Portfolio investment—Government securities	−3		−5		−1	
Companies, etc.	28		43		228	
		25		38		227
14. Direct investment—						
Branches—Unremitted profits	23		12		14	
Other	28		53		65	
Subsidiaries—Undistributed profits	110		109		112	
Other	240		340		237	
		401		514		428
15. Balancing item		94		44		256
Total, changes in liabilities		*534*		*556*		*935*
Balance on capital account		**53**		**777**		**877**

BALANCE OF PAYMENTS ON CURRENT ACCOUNT, BY MAJOR GROUP OF COUNTRIES: AUSTRALIA, 1963-64 TO 1965-66

($ million)

	1963–64	1964–65	1965–66p
EXPORTS f.o.b.(*a*)—			
Sterling—			
United Kingdom	516	507	466
Other	462	511	501
Non-sterling—			
North America	326	300	375
European Economic Community	426	381	435
European Free Trade Association(*b*)	27	30	29
Japan	486	439	466
Eastern Europe, China (mainland), etc.	322	247	189
Other	167	160	168
Total, exports	*2,732*	*2,575*	*2,629*
IMPORTS f.o.b.(*a*)—			
Sterling—			
United Kingdom	610	685	697
Other	291	326	309
Non-sterling—			
North America	587	782	821
European Economic Community	264	327	352
European Free Trade Association(*b*)	109	126	134
Japan	161	250	274
Eastern Europe, China (mainland), etc.	29	46	41
Other	186	197	194
Total, imports	*2,237*	*2,739*	*2,822*

For footnotes *see* next page.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT, BY MAJOR GROUP OF COUNTRIES: AUSTRALIA, 1963-64 TO 1965-66—*continued*

($ million)

	1963–64	1964–65	1965–66p
INVISIBLES (NET)—			
Sterling—			
United Kingdom	−139	−153	−143
Other	−110	−135	−178
Non-sterling—			
North America	−205	−207	−231
European Economic Community	−52	−70	−78
European Free Trade Association(*b*)	14	10	10
Japan	1	−4	5
Eastern Europe, China (mainland), etc.	−2	−1	−2
Other	−65	−61	−73
International agencies	−19	−19	−19
Gold production	29	27	25
Total, invisibles (net)	*−548*	*−613*	*−684*
BALANCE ON CURRENT ACCOUNT—			
Sterling—			
United Kingdom	−233	−331	−374
Other	61	50	14
Non-sterling—			
North America	−466	−689	−677
European Economic Community	110	−16	5
European Free Trade Association(*b*)	−68	−86	−95
Japan	326	185	197
Eastern Europe, China (mainland), etc.	291	200	146
Other	−84	−98	−99
International agencies	−19	−19	−19
Gold production	29	27	25
Total, balance on current account	**−53**	**−777**	**−877**

(*a*) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (*b*) Other than the United Kingdom.

Minus sign (−) denotes deficit.

International reserves

The following table shows the total net gold and foreign exchange holdings of official and banking institutions as at 30 June 1964, 1965, and 1966.

AUSTRALIAN INTERNATIONAL RESERVES, 1963–64 TO 1965–66

(*Source:* Reserve Bank of Australia)

($ million)

	30 June—		
	1964	1965	1966
Gold	195	205	198
Dollar exchange(*a*)	132	156	197
Sterling and other foreign exchange	1,149	589	685
Sterling securities(*b*)	196	404	294
Total	**1,672**	**1,354**	**1,375**

(*a*) Includes a small amount of dollar securities having an original maturity of more than twelve months. (*b*) Includes only securities having an original maturity of more than twelve months.

Indexes of value of exports and imports at constant prices

The following tables show indexes of exports and imports at constant prices for the years 1963–64, 1964–65 and 1965–66. These indexes are published half-yearly in *Balance of payments*, and notes on their construction are contained in Appendix IV. of *Balance of Payments, 1959–60 to 1963–64*.

INDEX OF VALUE OF EXPORTS(*a*) AT CONSTANT PRICES, 1963-64 TO 1965-66

(*Base of each index: year* 1959–60 = 100)

Commodity group	1963–64	1964–65	1965–66
Foodstuffs	160	156	145
Wool and sheepskins	106	102	102
Minerals, metals and metal manufactures(*b*)	157	161	203
Other	171	179	181
All exports	**137**	**135**	**136**

(*a*) Excludes gold. (*b*) Excludes machinery.

INDEX OF VALUE OF IMPORTS(*a*) AT CONSTANT PRICES, 1963-64 TO 1965-66

(*Base of each index: year* 1959–60 = 100)

Commodity group	1963–64	1964–65	1965–66
Food, drink and tobacco . . .	117	122	128
Textiles and clothing	109	123	115
Oils, fats and waxes	131	136	143
Metals, metal manufactures and machinery .	129	167	167
Other	143	167	172
All imports	**131**	**156**	**158**

(*a*) Excludes gold.

CHAPTER 13

TRANSPORT, COMMUNICATION AND TRAVEL

The statistics in this chapter relate in the main to the year 1965–66, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication, Commonwealth Finance*, and *State, Territory and Local Government Authorities' Finance and Government Securities.* Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, the *Monthly Bulletin of Motor Vehicle Registrations* and two preliminary monthly statements on *Registrations of New Motor Vehicles, Road Traffic Accidents involving Casualties* (quarterly), and *Overseas Arrivals and Departures* (monthly and quarterly)—*see* page 486. Greater detail on the latter subject is contained in the annual bulletin *Demography.*

Information additional to that contained in Bureau publications is available in the annual reports and other statements of the Department of Shipping and Transport, the various harbour boards and trusts, the several Government railways authorities, the Department of Civil Aviation, the Postmaster-General's Department, the Overseas Telecommunications Commission, the Australian Broadcasting Control Board, and the Australian Broadcasting Commission.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL AND ITS STANDING COMMITTEES

The Australian Transport Advisory Council

The Australian Transport Advisory Council, established April 1946, comprises the Commonwealth Minister for Shipping and Transport as Chairman, the Commonwealth Ministers for the Interior and Territories, and each State Minister for Transport. The administration of the Council and the standing committees it has established is the responsibility of the Commonwealth Department of Shipping and Transport. The general practice is that the Council convenes at least once a year, the annual meetings moving successively from one capital city to another.

The Council primarily considers policy matters relating to transport operation, co-ordination and development. Its functions are:

- to initiate discussions and report to the respective Governments as necessary, on any matter raised by the Council, or any State or Commonwealth Government Authority;
- generally to exercise its purely advisory functions, and to report as necessary to the respective Governments concerned, in any matter which will tend to promote a better co-ordination of transport development, whilst at the same time encouraging the utmost modernisation and innovation possible to meet changing needs;
- to assist in maintaining continuous and comprehensive research in relation to transport development in Australia and abroad; such research to be carried out for the benefit of Australian transport authorities and agencies.

The regulation of, and the executive responsibility for, transport is shared concurrently between the Commonwealth and State Governments. The Australian Transport Advisory Council is the meeting ground of Commonwealth and States at a ministerial level and provides an effective means for inviting discussion and reaching by way of mutual consent and understanding a uniformity of approach towards transport administrative procedures and policy. It also provides a means for reviewing and discussing proposals for the national solution of pressing transport problems and the rectification of transport deficiencies generally. The Council has been active in:

- the establishment of special committees and conferences to examine and report on specific problems such as road safety, motor vehicle standards, transport economic research, highway planning, level crossing accidents, blood tests for road users, pedestrian behaviour, etc.;
- the exchange of views and formulation of common policies on a wide range of transport matters;
- achieving general agreement for adoption by Governments of uniform legislation in transport matters;
- effecting at ministerial level Commonwealth-State and interstate co-operation on such matters as construction and operation of interstate railway links, collection of fines and fees interstate, policing of regulations, etc.; and
- the publication of comprehensive surveys of Australian transport.

The following are typical of matters the Australian Transport Advisory Council has examined from time to time:

the effect of standardisation of railways on other modes of transport;
advanced national policies of road development and research;
transport in relation to interstate tourist traffic;
standardisation of traffic signs and road signs;
standard and improved statistical data relating to transport of passengers and goods;
uniform road traffic laws and standards for motor vehicle design and equipment;
pipelines as a transport medium;
containerisation and the need for uniform legislation, particularly in relation to maximum weights of road vehicles.

Some of the Council's most useful work has been accomplished through the agency of committees established by the Council from time to time. Some committees are of a semi-permanent nature. They were established to initiate discussion and action on transport problems referred by member Ministers and other authorities and to undertake specialised work. Most of these committees meet at regular intervals and report annually on their progress to the Australian Transport Advisory Council. These committees are: The Australian Motor Vehicle Standards Committee, The Australian Road Safety Council, The Australian Road Traffic Code Committee, The Committee of Transport Economic Research, The Australian Dangerous Goods Transport Committee, and The Australian Motor Vehicle Design Advisory Panel. A short description of their functions and operations follows.

Australian Motor Vehicle Standards Committee

The Committee was established in January 1947 and consists of representatives of motor vehicle administering authorities in all States and Commonwealth Territories and non-governmental organisations associated with the manufacture and operation of commercial and private motor vehicles.

The main function of the Committee is to advise on standards for motor vehicle construction, equipment and performance, particularly relating to dimensions, weights, and braking and lighting efficiencies, with a view to improving road safety and obtaining uniformity of traffic legislation.

In 1954 the Department of Shipping and Transport published *Draft Regulations Defining Vehicle Construction, Equipment and Performance Standards for Road Vehicles*, endorsed by the Australian Transport Advisory Council, and in 1964 published a revised edition. The Committee is responsible for maintaining these Draft Regulations up to date, particularly in the light of changing ideas and conditions. The Draft Regulations detail minimum standards for most aspects of vehicle construction. They are being progressively implemented in legislation by the States and Territories, and have done much towards ensuring that motor vehicles are safer, thus contributing towards road safety, while reducing the complexities caused by conflicting legal requirements in the various States and Territories.

Australian Road Safety Council

The Australian Road Safety Council was established in May 1947, originally to conduct nationwide educational and public relations campaigns, but it now examines all aspects of road accident problems. The Council consists of the Chairman, three Commonwealth representatives, eight State and Territorial representatives, four representatives of the national non-governmental organisations associated with road transport and the motor industry, and six members who are specialists in the various fields associated with accidents and road safety, such as road and traffic engineering and research, law enforcement, medical research, and statistics.

The Councils' main functions are:

to advise the Australian Transport Advisory Council and other organisations concerned with the road users, the vehicle, and the environment, regarding all aspects of road accident problems, so that appropriate action can be taken which could lead to a reduction in the incidence of road accidents, fatalities and injuries;
to recommend programmes of public education, aimed at improving the knowledge, skills, attitudes and practices of all road users, and assist other organisations concerned in this field:
to investigate and report to the Australian Transport Advisory Council on specific road safety problems. and where necessary establish its own sub-committees to investigate and report on aspects not being undertaken by others, or to augment the work being done by other organisations;
to act as a focal point for the collection, analysis, evaluation and dissemination of statistical data on road accidents—through their analysis and evaluation the Council should emphasise those areas or aspects which are susceptible to improvement and take action if possible, or bring the facts to the attention of the appropriate body; and
to initiate or recomend research on road safety, including the evaluation in economic or other terms of possible steps to reduce road accidents.

At the present time a sub-committee is looking into the question of more comprehensive and purposeful road accident statistics.

Australian Road Traffic Code Committee

The Australian Road Traffic Code Committee, established in 1947, comprises one representative from each State and Territory and representatives from the Australian Automobile Association, the Australian Road Transport Federation, the Associated Chambers of Commerce, the Federal Chamber of Automotive Industries, and the Transport Workers' Union of Australia, with a representative of the Commonwealth Department of Shipping and Transport. The Committee is charged with responsibility for drafting recommendations for uniform road traffic laws throughout the Commonwealth, in keeping with modern traffic requirements and road safety.

Since its formation the Committee has prepared numerous recomendations, most of which are now embodied in the traffic laws and regulations of the States and Territories. In addition to traffic laws proper, the Committee has dealt with allied subjects such as driver licensing, medical fitness standards, the uniform number-plates scheme, the scheme for visiting motorists, the 1949 United Nations Convention on Road Traffic (acceded to by Australia in 1955), and uniform accident reporting.

In 1962 the Committee completed the preparation of a comprehensive code of traffic laws known as the National Road Traffic Code, which was approved by the Australian Transport Advisory Council in June 1962. This code is in conformity with the provisions of the United Nations Convention on Road Traffic in 1949, and was printed and distributed as a companion volume to the *Draft Regulations defining Vehicle Construction, Equipment and Performance Standards for Road Vehicles.*

Committee of Transport Economic Research

The Chairman of the Committee is a Commonwealth representative, one member represents the Commonwealth Department of Territories, and the other six members represent their respective States. The executive work of the Committee is undertaken by the Department of Shipping and Transport. The Committee undertakes continuous and comprehensive research into transport economics and development in Australia and abroad for the benefit of Australian transport authorities and agencies.

The Committee was originally set up in June 1955 to report on the economics and the costs of operation of road and rail transport, with particular emphasis on the influence of the costs of road construction and maintenance on vehicle operating costs. The Committee's report on these terms of reference was submitted in two parts, the first in September 1956, entitled *Road Transport Costs and Road Construction and Maintenance*, and the second in February 1958, entitled *Railway Costs and Co-ordinating Summary.*

The Committee has also prepared a report entitled *Report on Pattern and Trends of Transport in Australia*, 1955–56 *to* 1963–64. The purpose of the report is to provide a basic reference on trends and developments in transport for all relevant Commonwealth and State Departments, public authorities and enterprises interested in transport. It has been accepted by the Australian Transport Advisory Council and it is expected that it will be published shortly.

Australian Dangerous Goods Transport Committee

The Australian Dangerous Goods Transport Committee, established in 1960, consists of eight Commonwealth and eight State representatives, one representative from the National Health and Medical Research Council and one from the Standards Association of Australia. The Chairman is the Assistant Secretary of the Transport Branch of the Department of Shipping and Transport.

The functions of the Committee are as follows:

- to examine and report to the Australian Transport Advisory Council on various aspects of the transport of dangerous goods having an international or Australia-wide application;
- to examine and report on United Nations Committee of Experts proposals for a uniform system of classification and labelling of dangerous goods and reports by any other international agencies;
- to report on safety aspects of the transport of dangerous goods and collect and circulate information on this and other aspects of its functions.

The Committee has submitted a number of recommendations, many of which have been adopted by the United Nations Committee of Experts on the Transport of Dangerous Goods. It has also commenced the preparation of a model code relating to the classification, labelling and transport of dangerous goods within Australia.

Australian Motor Vehicle Design Advisory Panel

The Australian Transport Advisory Council in July 1965 agreed to the formation of an Australian Motor Vehicle Design Advisory Panel, to operate in collaboration with the Australian Motor Vehicle Standards Committee. The Panel comprises the Chairman of the Australian Motor Vehicle Standards Committee and the Australian Road Safety Council or their nominees; a statistical officer nominated by the Commonwealth Statistician; a medical practitioner nominated by the National Health and Medical Research Council; a person experienced in aircraft accident investigation and with engineering experience in human engineering, nominated by the Australian Road Research Board; and three engineers, one engaged in vehicle research nominated by the Melbourne University, a traffic engineer nominated by the Conference of State Traffic Control Engineers, and one suitably qualified and experienced in the mechanical design of vehicles and currently engaged in motor vehicle design, nominated by the Federal Chamber of Automotive Industries. The Chairman of the Panel is nominated by the Minister for Shipping and Transport from either within or outside the Panel.

The terms of reference of the Panel agreed to by Council are as follows:

initiate investigations on its own behalf and accept assignments from the Australian Motor Vehicle Standards Committee for the investigation of motor vehicles and their component parts and accessories with a view to reducing road deaths and minimising the extent and severity of road accident injuries to occupants or other road users and pedestrians by the production of a safer road vehicle;

consult with and co-opt, where necessary, such persons or organisations able to assist with the 'Panel' investigations;

report to the Australian Motor Vehicle Standards Committee the conclusions arising from its investigations and recommend appropriate action.

Initial investigation has commenced on seven specific items referred to the Panel by the Australian Transport Advisory Council. When its report on these items is complete the Panel will examine other safety features required overseas to determine their applicability to Australian conditions, and features for which Australian experience indicates a requirement.

SHIPPING

Control of shipping

Commonwealth navigation and shipping legislation

By section 51 (i) of the Commonwealth Constitution the Parliament of the Commonwealth is empowered to make laws in respect of 'Trade and commerce with other countries, and among the States'. By section 98 this power is further defined as extending to navigation and shipping. Section 51 (vii) empowers the Commonwealth Parliament to legislate in respect of 'Lighthouses, lightships, beacons and buoys' and section 51 (ix) in respect of 'Quarantine'.

A review of the introduction and development of the *Navigation Act* 1912–1950 is given in Year Book No. 40, pp. 110–12. Amendments to the principal Act were made by the Navigation Acts of 1952, 1953, 1956, 1958, 1961, and 1965. A further amendment was made in 1966 by the *Decimal Currency Act* 1966. Other shipping Acts under the powers of the Commonwealth are the *Sea-Carriage of Goods Act* 1924–1961, the *Seamen's Compensation Act* 1911–1964, the *Seamen's War Pensions and Allowances Act* 1940–1966, the *Pollution of the Sea by Oil Act* 1960–1965, the *Australian Coastal Shipping Commission Act* 1956–1966, the *Australian Coastal Shipping Agreement Act* 1956, the *Stevedoring Industry Act* 1956–1966, the *Beaches, Fishing Grounds and Sea Routes Protection Act* 1932–1966 (except Section 3), the *Submarine Cables and Pipelines Protection Act* 1963–1966, and the *Lighthouses Act* 1911–1966.

The control of shipping during, and immediately after, the 1939–45 War and the establishment of the Maritime Industry Commission (abolished in 1952), the Australian Stevedoring Industry Board (replaced in 1956 by the Australian Stevedoring Industry Authority), and the Australian Shipping Board (replaced in 1956 by the Australian Coastal Shipping Commission) are described in Year Books No. 36, pages 121–30, and No. 39, pages 147–8.

Australian Coastal Shipping Commission

This Commission was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services, and replaced the Australian Shipping Board. It operates the Australian National Line, a Commonwealth-owned merchant shipping service, which at 30 June 1966 comprised thirty-eight vessels totalling 228,342 gross tons. These vessels included ten with a gross tonnage of 500 to 3,000, twelve with a gross tonnage of 3,000 to 5,000, and eleven with a gross tonnage of 5,000 to 8,000; the passenger/vehicular vessel *Empress of*

Australia, 12,037 gross tons: the bulk ore carriers *Mount Keira*, 10,229 gross tons, *Mount Kembla*, 10,112 gross tons, *Musgrave Range*, 14,467 gross tons; and the new 49,375 tons deadweight bulk carrier *Darling River*.

At 30 June 1966 vessels on order at Australian shipyards for the Commission included two 4,000 tons deadweight vehicle deck cargo vessels and a 54,000 tons deadweight bulk carrier. These vessels are to be completed in 1968.

During 1965–66 the *Princess of Tasmania* carried 88,274 passengers, 21,270 accompanied vehicles, 8,131 commercial vehicles, and 2,955 trade cars. The *Empress of Australia* carried 22,041 passengers, 3,925 accompanied vehicles, 14,490 commercial vehicles, and 506 trade cars over the same period. These vessels operate in the mainland–Tasmania trade.

Australian Shipbuilding Board

Established in March 1941 as a wartime measure under the National Security (Shipbuilding) Regulations and constituted in 1948 under the *Supply and Development Act* 1939–1948, the Board now operates under the control of the Minister for Shipping and Transport. In November 1963 the Commonwealth Public Service Board approved its permanent establishment as a branch of the Department of Shipping and Transport. The membership of the Board consists of a Chairman, a Finance Member and three other members, one of whom is also a member of the Naval Board.

The functions of the Board are set out in detail in Regulation 22 (4) of the Supply and Development Regulations and in the exercise of those functions the Board is responsible for, briefly:

(*a*) recommending to the Minister for Shipping and Transport the price at which vessels may be purchased and disposed of by him on behalf of the Commonwealth;

(*b*) the design and inspection of construction of merchant ships;

(*c*) research into all matters connected with or incidental to shipbuilding;

(*d*) advice to the Minister on developments in the shipbuilding industry;

(*e*) rendering assistance to all sections of the industry.

Up to 31 January 1967 the Board had arranged for the construction of 108 merchant vessels and a naval survey vessel, totalling approximately 680,000 deadweight tons, at a cost of about $234,000,000, and thirty smaller vessels to which the Commonwealth shipbuilding subsidy was not applied.

Up to 31 January 1967 the Board had current orders for the construction of eighteen vessels totalling about 175,000 deadweight tons. These vessels comprise two 50,000 ton bulk carriers, three tankers, one oil drilling rig, one coral carrier, one passenger/cargo vessel, three roll-on/roll-off vessels, one hopper dredge, one floating crane, and five tugs. There are also smaller craft.

There are five major Australian shipyards building merchant vessels, two in Queensland (Evans Deakin and Co. Pty. Ltd., Brisbane, and Walkers Ltd., Maryborough), two in South Australia (Adelaide Ship Construction Pty. Ltd., Port Adelaide, and Whyalla Shipbuilding and Engineering Works, Whyalla), and one in New South Wales (State Dockyard, Newcastle), and two shipyards engaged principally in naval shipbuilding, one in New South Wales (Cockatoo Docks and Engineering Co. Pty. Ltd., Sydney) and one in Victoria (H.M. Naval Dockyard, Williamstown). There are also numerous smaller yards, situated in every State, building smaller steel and wooden working and pleasure craft.

Australian Stevedoring Industry Authority

In March 1947 legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. In June 1949 legislation was enacted to abolish the Stevedoring Industry Commission, on which employers and employees were represented, and establish in its place a Stevedoring Industry Board of three members, to attend to administrative matters formerly under the control of the Commission, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities. The industrial functions which previously came within the province of the Commission were assigned to a single Judge of the Commonwealth Court of Conciliation and Arbitration. In August 1956, following a Committee of Inquiry into the stevedoring industry, the Stevedoring Industry Board was replaced by the Australian Stevedoring Industry Authority of three members, including a representative of the management side of industry and a representative of the trade union movement. At the same time the judicial and non-judicial functions formerly exercised by the Commonwealth Court of Conciliation and Arbitration were divided between the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission respectively. Awards of the Conciliation and Arbitration Commission subsequently placed payment of sick pay, public holiday pay and annual leave under the administration of the Authority. Under amending legislation, which operated from 6 June 1961, the Authority became responsible for payment of long service leave to registered waterside workers, and its disciplinary powers were strengthened to reduce the time lost through unauthorised stoppages. Further amending legislation, which operated from 8 October 1965, made the Authority solely responsible for the recruitment of waterside workers. The statutory provisions regulating the industry are now contained in the *Stevedoring Industry Act* 1956–1966, the *Stevedoring Industry Act* 1963, and Division 4 of Part III of the *Conciliation and Arbitration Act* 1904–1966.

System of record of shipping

In the system of recording statistics of overseas shipping, Australia is considered as a unit, and therefore only one entry and one clearance are counted for each voyage, without regard to the number of States visited (*see also* pages 428–9). For the purpose of these statistics all external territories are treated as overseas countries.

On arrival at, or departure from, a port in Australia, whether from or for an overseas country or from or for another port in Australia, the master or agent must 'enter' the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to the Bureau of Census and Statistics. This information relates, in the main, to vessels engaged in the carriage of passengers and/or cargo between Australian States or between Australia and overseas countries.

The size of a vessel may be expressed in a number of ways. A vessel's gross tonnage, expressed in tons of 100 cubic feet, represents the total volume of the enclosed space, i.e. a ship of 25,000 tons has a total enclosed capacity of 2,500,000 cubic feet. Its net tonnage, expressed in tons of 100 cubic feet, represents the volume of enclosed space that can be used for cargo or passengers. Its displacement is its total weight and is expressed in tons of 2,240 lb. Its deadweight tonnage is the difference between the displacement of the vessel loaded to its summer loadline and the displacement light, i.e. it is the weight the vessel can carry, including the weight of bunkers and stores. Net tonnage is the concept generally used in the tables in this chapter, but since it can give a misleading impression of the size of ships which have a function other than carrying passengers and cargo (e.g. a tug has no net tonnage), some figures are given for deadweight tons and tons gross also.

Most cargo is recorded in terms of tons of 2,240 lb. However, some is shipped and recorded on the basis of forty cubic feet representing one ton measurement.

Except in Shipping at principal ports (pages 431–2) intra-State (coastal) movements, including those of vessels engaged solely in trade within State limits, are excluded from the statistics in the following pages.

Overseas shipping

Total movement

The following table shows the number of entrances and clearances combined of overseas vessels at Australian ports, and the aggregate net tonnage, during each of the years 1961–62 to 1965–66.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA
1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
Number of vessels .	7,210	6,762	7,477	7,601	7,958
Net tonnage '000 tons	37,662	37,584	41,640	43,295	46,382

Particulars of the total overseas movement of shipping for each year from 1822 to 1920–21 were published in Year Book No. 15, page 507, and those for each year from 1921–22 to 1950–51 in Year Book No. 40, page 97.

Total overseas shipping, States, etc.

The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to overseas countries, and the aggregate net tonnage, during the year 1965–66.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT STATES AND NORTHERN TERRITORY, 1965–66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .	number	1,168	482	872	324	903	123	57	3,929
	'000 net tons	7,495	3,006	3,922	2,622	5,491	330	176	23,042
Clearances .	number	1,067	538	1,059	260	962	101	42	4,029
	'000 net tons	7,336	4,415	4,721	1,061	5,381	296	130	23,340

Shipping communication with various countries

A vessel arriving in Australia from overseas is recorded as coming from the country where the voyage commenced, irrespective of the number of intermediate ports of call. Similarly, a vessel leaving Australia is recorded as going to the country where the voyage is scheduled to terminate. The following table shows statistics of the net tonnage entered and cleared, with cargo and in ballast, according to the principal countries where vessels commenced or terminated their voyages to or from Australia during each of the years 1963–64 to 1966.

OVERSEAS SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH CLEARED, AUSTRALIA, 1963–64 TO 1965–66

('000 net tons)

Country from which entered or for which cleared	With cargo or in ballast	Entered			Cleared		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Arabian States	Cargo	3,183	3,664	3,764	266	214	267
	Ballast	53	18	33	2,976	3,074	3,815
Canada	Cargo	499	657	669	274	301	157
	Ballast	..	..	..	..	3	..
China (mainland)	Cargo	60	48	44	1,134	1,021	769
	Ballast	275	211	293	5	6	57
France	Cargo	98	127	123	93	117	148
	Ballast	..	10	..	..	..	8
Germany, Federal Republic of	Cargo	353	269	332	429	386	567
	Ballast	1	11	18	..	..	14
Hong Kong	Cargo	256	120	167	239	299	306
	Ballast	84	80	80	48	22	34
Iran	Cargo	1,102	692	811	107	132	202
	Ballast	25	4	37	876	660	586
Italy	Cargo	282	315	266	270	337	333
	Ballast	..	1	6	..	..	..
Japan	Cargo	1,197	1,294	1,251	3,220	4,005	4,654
	Ballast	3,321	3,487	3,936	34	100	183
Malaysia(*a*)	Cargo	335	732	488	140	507	316
	Ballast	6	103	26	88	332	238
Nauru	Cargo	561	468	376	322	205	208
	Ballast	..	..	4	43	79	86
Netherlands	Cargo	94	100	91	247	156	98
	Ballast	..	15	6	..	22	56
New Caledonia	Cargo	186	158	174	265	272	323
	Ballast	33	65	121	29	30	56
New Zealand	Cargo	740	602	686	1,267	859	816
	Ballast	752	529	737	100	225	525
Papua and New Guinea	Cargo	123	177	186	137	193	261
	Ballast	6	14	9	14	11	22
Philippines	Cargo	86	194	134	133	81	121
	Ballast	46	23	45	..	16	26
Singapore	Cargo	291	(*b*)	(*c*) 310	380	(*b*)	(*c*) 176
	Ballast	93	(*b*)	(*c*) 97	286	(*b*)	(*c*) 112
South Africa	Cargo	107	56	67	83	77	77
	Ballast	..	27	21	11	..	6
United Kingdom	Cargo	1,562	1,748	1,705	2,309	2,217	2,142
	Ballast	46	24	43	23	18	215
United States of America	Cargo	1,024	1,074	1,283	816	725	844
	Ballast	6	31	11	30	45	14
U.S.S.R.	Cargo	40	18	13	719	394	227
	Ballast	162	221	139	8	39	25
Other countries	Cargo	3,263	3,842	4,012	1,926	2,200	2,357
	Ballast	372	460	428	1,570	2,226	1,893
Total	Cargo	15,442	16,355	16.952	14.776	14,698	15,369
	Ballast	5,281	5,334	6,090	6,141	6,908	7,971
Grand total	..	**20,723**	**21,689**	**23,042**	**20,917**	**21,606**	**23,340**

(*a*) For years prior to 1964–65 figures for Malaysia exclude Sarawak, included in Other countries. (*b*) Included in Malaysia. (*c*) Included with Malaysia prior to 1 October 1966.

Country of registration of overseas shipping

Particulars of overseas shipping which entered Australian ports during each of the years 1963–64 to 1965–66 are given in the following table according to country of registration of vessels.

OVERSEAS SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA, 1963-64 TO 1965-66

('000 net tons)

Vessels registered at ports in—	1963–64	1964–65	1965–66	Vessels registered at ports in—	1963–64	1964–65	1965–66
Australia . . .	95	119	141	Panama . . .	605	551	423
Denmark . . .	680	387	262	Sweden . . .	867	769	686
France(*a*) . . .	289	403	540	United Kingdom .	7,535	6,936	7,109
Germany, Federal Republic of . .	419	710	590	United States of America . . .	311	260	296
Greece . . .	1,410	1,264	1,384	Other countries .	496	711	409
Hong Kong . .	393	373	289				
India . . .	43	86	244	All countries—			
Italy . . .	669	752	712	In cargo . .	15,442	16,355	16.952
Japan . . .	1,216	1.850	2.628				
Liberia . . .	1,400	1.833	2.643	Proportion of total % . . .	74 5	75 4	73 6
Netherlands . .	974	1,122	1,020	In ballast . .	5,281	5,334	6,090
New Zealand . .	379	378	375				
Norway . . .	2 942	3,185	3,291	Proportion of total % . . .	25 5	24 6	26 4
				Grand total .	20,723	21,689	23,042

(*a*) Includes New Caledonia (40 during 1964–65, 27 during 1965–66).

Australian registered tonnage which entered Australian ports from overseas during the year 1965-66 represented 0 6 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade.

Interstate shipping

System of record

Interstate shipping comprises two elements: (*a*) vessels engaged solely in interstate trade; and (*b*) vessels trading between Australia and overseas countries and in the course of their voyages proceeding from one State to another. (Overseas vessels may obtain Single Voyage Permits under section 286 of the Navigation Act to perform certain tasks on the Australian coast in cases where no 'licensed' vessel is available. Examples are the numerous tankers that obtain permits to carry petroleum products between interstate ports and, since the withdrawal of most of the interstate passenger liners, the overseas vessels which are given permits to carry passengers and frozen cargoes on the interstate run. At the present time orders in Council exist exempting certain trades from the provisions of the Navigation Act and it is not necessary for 'unlicensed' vessels to obtain a permit to engage in those trades.*) No complexity enters into the record of those in category (*a*), but with regard to the method of recording the movements of the overseas vessels (*b*), some explanation is necessary. Each State desires that its shipping statistics should show in full its shipping communications with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics of Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say the United Kingdom—via another State, is recorded in the second State as from the United Kingdom 'Overseas via *States*', thus distinguishing the movement from a direct overseas entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from the United Kingdom 'Overseas via *States*'. On an inward voyage, the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as 'Overseas via States' or 'Interstate' according to the direction of the movement. The significance of the record of these movements will be seen more clearly from the following tabular presentation of the inward and outward voyages to and from Australia of an overseas vessel which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—via South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, in this case retracing its inward track.

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* *Australian Shipping and Shipbuilding Statistics* published by the Department of Shipping and Transport.

ITINERARY OF AN OVERSEAS VESSEL ON THE AUSTRALIAN COAST

	Recorded as—		
	For the State and for Australia	For the States	
	1.	2.	3.
Inward voyage—			
Enters Fremantle from United Kingdom	Overseas direct		
Clears Fremantle for Adelaide		Interstate direct	
Enters Adelaide from United Kingdom via Fremantle			Overseas via States
Clears Adelaide for Melbourne		Interstate direct	
Enters Melbourne from United Kingdom via Adelaide			Overseas via States
Clears Melbourne for Sydney		Interstate direct	
Enters Sydney from United Kingdom via Melbourne			Overseas via States
Outward voyage—			
Clears Sydney for United Kingdom via Melbourne			Overseas via States
Enters Melbourne from Sydney		Interstate direct	
Clears Melbourne for United Kingdom via Adelaide			Overseas via States
Enters Adelaide from Melbourne		Interstate direct	
Clears Adelaide for United Kingdom via Fremantle			Overseas via States
Enters Fremantle from Adelaide		Interstate direct	
Clears Fremantle for United Kingdom	Overseas direct		

From the method outlined above the requirements for Australia and for the individual States are ascertained as follows. (*a*) The aggregate of all ships recorded for each State as 'Overseas *direct*' gives the overseas shipping for Australia as a whole; (*b*) the aggregate for all ships recorded in any State as 'Overseas *direct*' plus those recorded as 'Overseas via *States*' gives the total *oversea shipping* for that State; and (*c*) the aggregate for all ships recorded as 'Overseas via *States*' may also be used, together with those recorded as 'Interstate *direct*' (including those engaged solely in interstate movement) to furnish figures showing the total *interstate movement* of shipping.

Interstate movement

Interstate direct. The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including overseas vessels on interstate direct voyages as in column 2 above) during each of the years 1963–64 to 1965–66.

INTERSTATE MOVEMENT: ENTRANCES OF VESSELS INTERSTATE DIRECT STATES AND NORTHERN TERRITORY, 1963-64 TO 1965-66

State or Territory	Number			Net tons ('000)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
New South Wales	1,974	2,154	1,976	6,656	7,388	7,889
Victoria	1,763	1,777	1,861	5,355	5,606	5,489
Queensland	789	879	806	2,213	2,656	2,670
South Australia	1,228	1,222	1,163	4,397	4,595	4,381
Western Australia	667	700	735	3,176	3,413	3,827
Tasmania	1,131	1,151	1,258	1,719	2,136	2,464
Northern Territory	78	82	81	177	159	147
Australia	**7,630**	**7,965**	**7,880**	**23,693**	**25,953**	**26,867**

Overseas via States. The figures in the following table show the number of entrances and clearances of vessels to and from overseas countries via other Australian States as in column 3 in the table at the top of the page, and their aggregate net tonnage.

INTERSTATE MOVEMENT: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES AND NORTHERN TERRITORY 1965–66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .	number	862	1,075	434	522	69	264	7	3,233
	'000 net tons	4,316	6,623	1,921	2,514	276	1,092	35	16,777
Clearances .	number	892	913	320	518	43	311	13	3,010
	'000 net tons	4,080	4,606	1,383	2,508	289	1,252	55	14,173

Total interstate movement. To ascertain the aggregate movement of interstate shipping, including the interstate movement of overseas vessels, figures in the two preceding tables must be combined. The following table shows, for each State and the Northern Territory, the total number of entrances and clearances of vessels from and for other States (including the interstate movement of overseas vessels) during the year 1965–66, together with the aggregate net tonnage.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES STATES AND NORTHERN TERRITORY, 1965–66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .	number	2,838	2,936	1,240	1,685	804	1,522	88	11,113
	'000 net tons	12,205	12,112	4,591	6,895	4,103	3,556	182	43,644
Clearances .	number	2,987	2,897	1,041	1,754	749	1,574	95	11,097
	'000 net tons	12,523	10,758	3,667	8,468	4,147	3,822	224	43,609

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for Australia for each of the years 1961–62 to 1965–66.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES AUSTRALIA, 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Entrances	number	10,551	10,552	11,040	11,172	11,113
	'000 net tons	36,974	37,428	40,747	42,569	43,644
Clearances . . .	number	10,608	10,746	10,985	11,229	11,097
	'000 net tons	36,923	37,862	40,400	42,532	43,609

Shipping engaged solely in interstate trade

The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in interstate trade (i.e. excluding overseas vessels in continuation of their overseas voyages) during the year 1965–66, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE: ENTRANCES, STATES AND NORTHERN TERRITORY, 1965–66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	number	1,260	1,341	401	870	355	1,186	67	5,480
Net tons	'000	4,528	2,888	1,038	2,834	1,538	2,155	124	15,105

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or coastal (intrastate) services at 31 December 1966.

AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
31 DECEMBER 1966

(*Source:* Department of Shipping and Transport)

Vessels	Number	Dead-weight tons	Gross tons
Interstate vessels—			
Australian-owned, Australian-registered	89	632,800	483,827
Overseas-owned, Australian-registered, engaged in Australian coastal trade—New Zealand-owned	9	25,981	22,898
Other	10	169,578	115,227
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	2	70,791	47,605
Total interstate vessels	110	899,150	669,557
Intrastate vessels	19	29,601	24,417
Total coastal trading vessels	*129*	*928,751*	*693,974*
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	8	55,069	43,527
Australian-owned, overseas-registered operated wholly on overseas services	8	75,103	56,768
Total overseas trading vessels	*16*	*130,172*	*100,295*
Total Australian trading vessels	**145**	**1,058,923**	**794,269**

Shipping at principal ports

For details of Harbour Boards and Trusts in each State *see* the chapter Local Government.

Total shipping

The following table shows the total volume of shipping—overseas, interstate and coastal—which entered the principal ports of Australia during the years 1964–65 and 1965–66. The movements of warships and of other non-commercial vessels are excluded from the table.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA 1964–65 AND 1965–66

Port of entry	1964–65		1965–66		Port of entry	1964–65		1965–66	
	Number	Net tons	Number	Net tons		Number	Net tons	Number	Net tons
		'000		'000			'000		'000
New South Wales—									
Sydney(*a*)	4,357	16,890	4.155	16.760	Western Australia—				
Newcastle	1.899	5.584	1.818	5.845	Fremantle(*c*)	1,411	7,715	1,562	8,383
Port Kembla	1,153	4,398	1,065	4,623	Albany	157	763	151	800
					Bunbury	139	660	168	727
Victoria—					Carnarvon	81	99	41	43
Melbourne	2,938	12,550	3,008	12.267	Geraldton	95	372	138	566
Geelong	649	3,627	637	3,614	Yampi	177	788	208	1,190
Queensland—					Tasmania—				
Brisbane	1,543	5,812	1,585	6,405	Hobart	535	1.325	547	1.449
Bowen	29	119	27	101	Burnie	402	1,054	491	1,294
Cairns	255	641	283	693	Devonport	402	700	388	768
Gladstone	125	766	138	1,017	Launceston	532	1,009	548	1,194
Mackay	153	509	167	675					
Rockhampton	100	261	76	313	Northern Territory—				
Townsville	318	1,062	349	1,103	Darwin	142	362	147	358
South Australia—									
Adelaide(*b*)	2,471	6,169	2,460	7,539					
Port Lincoln	330	545	329	535					
Port Pirie	440	1,014	413	916					
Rapid Bay	89	269	90	283					
Wallaroo	47	228	48	177					
Whyalla	525	2,110	479	1,988					

(*a*) Includes Botany Bay. (*b*) Includes Port Stanvac. (*c*) Includes Kwinana.

The following table shows the total shipping tonnage which entered the principal ports of Australia, New Zealand and the United Kingdom during 1965–66.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM, 1965-66

('000 net tons)

Port	Net tonnage entered	Port	Net tonnage entered	Port	Net tonnage entered
AUSTRALIA—		NEW ZEALAND—		ENGLAND AND WALES—*continued*	
Sydney (N.S.W.)(*a*)	16,760	Wellington	4.672		
Melbourne (Vic.)	12,267	Auckland	4.666		
Fremantle (W.A.)(*b*)	8.383	Lyttleton	3,205	Manchester (including Runcorn)	7,695
Adelaide (S.A.)(*c*)	7,539	Whangarei	2 373	Tyne Ports	6,705
Brisbane (Qld)	6.405	Otago	1,292	Hull	6,606
Newcastle (N.S.W.)	5,845	Napier	1,260	Bristol	6 030
Port Kembla (N.S.W.)	4.623	Bluff	868	Middlesbrough	5.228
Geelong (Vic.)	3.614	Taranaki	829	Swansea	3,705
Whyalla (S.A.)	1.988			Cardiff	3,271
Hobart (Tas.)	1.449	ENGLAND AND WALES—			
Burnie (Tas.)	1.294	London	44.327	SCOTLAND—	
Launceston (Tas.)	1.194	Southampton	25,153	Glasgow	8,274
Yampi (W.A.)	1,190	Liverpool (including Birkenhead)	21,775	NORTHERN IRELAND—	
Townsville (Qld)	1,103	Dover	8,865	Belfast	8,297

(*a*) Includes Botany Bay. (*b*) Includes Kwinana. (*c*) Includes Port Stanvac.

Shipping cargo

Overseas and interstate cargo

The tables following show the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports. Most cargo is recorded in terms of tons of 2,240 lb; the remainder, mainly bulky commodities, is shipped and recorded on the basis of forty cubic feet representing one ton measurement.

CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1961-62 TO 1965-66

('000 tons)

Year	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
1961–62	17,508	2,763	17,178	1,547	13,318	1,427	13,658	1,186
1962–63	19,497	3,397	15,405	1,545	13,882	1,306	14,340	1,100
1963–64	20,788	3,942	19,744	1,861	15,321	1,453	15,632	1,208
1964–65	23,211	4,443	20,424	1,980	15,447	1,722	16,360	1,402
1965–66	24,156	4,119	21,749	2,043	15,349	1,942	16,172	1,484

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1965-66

('000 tons)

Port	Discharged				Shipped			
	Overseas		Interstate		Overseas		Interstate	
	Wt	Meas.	Wt	Meas.	Wt	Meas.	Wt	Meas.
New South Wales—								
Sydney	2,520	1,614	985	186	3,209	627	384	145
Botany Bay	4,058	..	63	..	45	..	525	..
Newcastle	647	..	3,263	..	3,053	..	1,523	..
Port Kembla	659	..	4,239	..	2,038	1	1,064	..
Other	..	..	23	..	14	7	2	..
Total, New South Wales	*7,884*	*1,614*	*8,573*	*186*	*8,359*	*635*	*3,498*	*145*
Victoria—								
Melbourne	3,220	1,550	1,718	830	1,017	676	440	702
Geelong	3,867	27	558	1	1,461	2	758	2
Portland	23	..	79	..	69	..	1	..
Total, Victoria	*7,110*	*1,577*	*2,355*	*831*	*2,547*	*678*	*1,199*	*704*
Queensland—								
Brisbane	1,650	322	531	51	820	124	238	44
Cairns	45	7	58	6	280	1	29	3
Gladstone	35	..	60	..	1,742	..	..	..
Mackay	41	..	32	..	539	..	60	..
Townsville	64	7	108	12	454	..	89	1
Other	10	1	41	..	997	3	627	1
Total, Queensland	*1,845*	*337*	*830*	*69*	*4,832*	*128*	*1,043*	*49*
South Australia—								
Port Adelaide	450	395	966	35	488	242	171	14
Ardrossan	..	..	..	..	137	..	298	..
Port Lincoln	66	..	15	..	274	..	40	..
Port Pirie	..	..	153	..	524	..	211	..
Port Stanvac	1,723	..	..	..	5	..	451	..
Rapid Bay	..	..	..	..	..	..	453	..
Whyalla	59	..	489	..	150	..	4,008	..
Other	57	..	6	..	405	..	320	..
Total, South Australia	*2,355*	*395*	*1,629*	*35*	*1,983*	*242*	*5,952*	*14*
Western Australia—								
Fremantle	616	160	683	111	1,647	62	184	37
Bunbury	117	..	2	..	555	23	41	..
Geraldton	99	..	..	..	518	44	50	..
Kwinana	3,317	..	37	..	401	..	1,182	..
Yampi	..	..	1	..	99	..	2,368	..
Other	325	1	54	1	584	15	6	5
Total, Western Australia	*4,474*	*161*	*777*	*112*	*3,804*	*144*	*3,831*	*42*
Tasmania—								
Hobart	149	25	243	228	122	163	181	115
Burnie	55	1	325	18	39	21	184	47
Launceston	128	9	384	150	37	14	129	90
Other	4	..	145	313	5	18	143	278
Total, Tasmania	*336*	*35*	*1,097*	*709*	*203*	*216*	*637*	*530*
Northern Territory—								
Darwin, *Northern Territory*	*152*	..	*88*	..	*21*	..	*12*	..
Australia	24,156	4,119	15,349	1,942	21,749	2,043	16,172	1,484

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and shipped combined, according to the country in which the vessels were registered, during each of the years 1963–64 to 1965–66.

OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION OF VESSELS: AUSTRALIA, 1963-64 TO 1965-66

('000 tons)

Vessels registered at ports in—	1963–64		1964–65		1965–66	
	Weight	Meas.	Weight	Meas.	Weight	Meas.
Australia	156	107	156	128	231	125
Denmark	1,706	88	872	82	519	66
France and New Caledonia . .	415	107	748	110	1,089	97
Germany, Federal Republic of .	765	350	1,542	352	1,393	316
Greece	2,818	131	2,647	88	2,700	85
Hong Kong	898	69	807	101	621	139
India	52	25	202	39	479	42
Italy	623	46	779	55	560	60
Japan	2,589	271	3,852	450	5,803	434
Liberia	3,172	32	4,407	57	6,045	85
Netherlands.	1,757	339	2,278	445	2,003	385
New Zealand	641	396	548	529	675	464
Norway	7,541	263	8,279	425	8,129	364
Panama	1,151	51	1,047	18	908	48
Sweden	2,049	373	1,886	361	1,632	351
United Kingdom	13,076	2,925	12,099	2,916	12,090	2,937
United States of America . .	210	111	206	114	204	94
Other	913	119	1,280	153	824	70
Grand total	**40,532**	**5,803**	**43,635**	**6,423**	**45,905**	**6,162**

World shipping tonnage

At 1 July 1966 the total steamships and motorships 100 gross tons and upwards throughout the world was 43,014, with a gross tonnage of 171,129,833. Of those totals, steamships numbered 10,407 for 75,468,776 gross tons, and motorships 32,607 for 95,661,057 gross tons. This includes 5,453 oil tankers of 100 gross tons and upwards, with a gross tonnage of 60,199,965. Australian steamships and motorships, 295 for 744,356 gross tons, constituted 0.69 per cent and 0.43 per cent respectively of the total number and tonnage. This information has been derived from *Lloyd's Register of Shipping.*

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 30 June 1966, classified according to: (i) year of construction, 1962 to 1965 and 1961 and earlier years, (ii) type of trade in which the vessels were engaged, and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 31 DECEMBER 1965(*a*)

(*Source:* Department of Shipping and Transport)

Year of construction	Overseas and interstate vessels		Intrastate vessels		Built in Australian yards		Built overseas		Total	
	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons
1961 and earlier	105	556,502	18	22,176	60	319,261	63	259,417	123	578,678
1962	2	12,932	..	..	2	12,932	..	..	2	12,932
1963	5	32,555	..	..	5	32,555	..	..	5	32,555
1964	3	29,716	..	..	3	29,716	..	..	3	29,716
1965	1	33,774	1	2,241	2	36,015	..	..	2	36,015
Total registered in Australia	116	665,479	19	24,417	72	430,479	63	259,417	135	689,896

(*a*) 200 gross tons and over.

Miscellaneous

Shipping freight rates

The *Quarterly Summary of Australian Statistics* shows a list of the current freight rates for general merchandise in respect of both overseas and interstate shipments. The following table shows the freight rates from Australia to various countries for certain important commodities at 31 December 1966.

OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966(*a*)

(1 ton measurement = 40 cubic feet)

Country and article	Unit for which freight rate is quoted	Freight rate quoted
CANADA—EAST COAST AND ST LAWRENCE PORTS TO MONTREAL—		*Rates—Canadian dollars*
Fruit—		
Canned	40 cu ft	39.10
Dried	40 cu ft	36.50
Preserved	40 cu ft	42.20
Wine	Weight measurement	47.60
Wool—greasy	100 lb	5.25
General cargo	Weight measurement	47.60
CEYLON—		*Rates—Sterling*
Flour, wheaten	Ton weight	£8.250
Milk and cream—		
Condensed	Ton measurement	£14.100
Frozen	Ton measurement	£24.325
General cargo	Ton weight or measurement	£14.100
CHINA—		*Rates—Australian shillings and pence*
Flour in bags	2,000 lb	165 0
Wheat in bags	Ton	165 0
Wool—		
Greasy	lb	0 3
Scoured, etc.	lb	0 3.49
General cargo	Ton weight or measurement	275 0
CONTINENTAL EUROPE—*See* UNITED KINGDOM, ETC.		
HONG KONG—		
Sugar, refined, in bags	20 cwt	245 0
Wheat, in bags	20 cwt (net)	165 0
Wool—		
Greasy	lb	0 3
Scoured, etc.	lb	0 3.49
General cargo	Ton weight or measurement	275 0

(*a*) Rates for commodities shipped in chartered vessels and bulkships not included.

OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966(*a*)—*continued*

Country and article	Unit for which freight rate is quoted	Freight rate quoted
INDIA—		*Rates—Sterling*
Milk products in cases, cartons, etc.	Ton measurement	£10.750
Wheat in bags	Ton weight	£8.100
Wool—		
Greasy	lb	3.45d.
Scoured, etc.	lb	4.42d.
Zinc bars	Ton weight	£6.500
General cargo	Ton weight or measurement	£12.625
INDONESIA—		*Rates—Australian shillings and pence*
Flour—		
From eastern Australian ports	2,000 lb	170 0
From western Australian ports	2,000 lb	160 0
General cargo—		
From eastern Australian ports	Ton weight or measurement	262 6
From western Australian ports	Ton weight or measurement	242 6
JAPAN—		
Cattle hides	20 cwt	275 0
Coal, in bags	20 cwt	235 0
Concentrates (copper, lead and zinc)—		
Parcels(*b*)	20 cwt	180 0
Bulk(*c*)	20 cwt	130 0 F.I.T.(*e*)
Iron and steel scrap—		
Loose	20 cwt	240 0
4-cwt drums	20 cwt	210 0
Over 4-cwt drums	20 cwt	185 0
Ore, copper ex North Queensland—Bulk	20 cwt	115 0 F.I.O.T.(*f*)
Sugar, refined, in bags	20 cwt (net)	245 0
Wheat, in bags	20 cwt (net)	165 0
Wool—		
Greasy	lb	0 3.32
Scoured, etc.	lb	0 3.86
General cargo	Ton weight or measurement	275 0
MALAYSIA—		
Milk products—		
Condensed—		
From eastern Australian ports	Ton measurement	245 0
From western Australian ports	Ton measurement	225 0
Powdered in bags—		
From eastern Australian ports	Ton weight	305 0
From western Australian ports	Ton weight	285 0
Powdered in cases or cartons—		
From eastern Australian ports	Ton weight or measurement	250 0
From western Australian ports	Ton weight or measurement	230 0
Flour—		
From eastern Australian ports	2,000 lb	165 0
From western Australian ports	2,000 lb	155 0
General cargo—		
From eastern Australian ports	Ton weight or measurement	262 6
From western Australian ports	Ton weight or measurement	242 6
NEW ZEALAND(*d*)—		*Rates—New Zealand currency*
Fruit—		
Dried	40 cu ft	177 6
Fresh—Oranges (per case 1 ft 7 ins)	Per case	8 3
Textiles, yarns—		
Piecegoods	40 cu ft/20 cwt	177 6
Iron and steel—		
Bars, rods, angles, tees (up to 30 ft long)	20 cwt	170 0
Pipes and tubes (up to 20 ft long)	20 cwt	148 0
Plate (up to 20 ft long)	20 cwt	170 0
Sheet (bundles)	20 cwt	137 6
Wire, lattice	40 cu ft	177 6
Lead oxide	20 cwt	170 0
Zinc oxide	20 cwt	170 0
Copper—		
Bars and rods (up to 30 ft long)	20 cwt	170 0
Sheets in bundles	20 cwt	137 6
Pipes and tubes (up to 20 ft long)	20 cwt	148 0
Plates (up to 20 ft long)	20 cwt	170 0
Motor vehicles—		
Assembled	40 cu ft	103 0
Unassembled	40 cu ft	177 6
Parts	40 cu ft	177 6
Household machines	40 cu ft/20 cwt	177 6
Timber (up to 20 ft long)	100 super ft	45 6
Books and periodicals	40 cu ft/20 cwt	177 6
Drugs and medicinal preparations	40 cu ft/20 cwt	177 6
Sodium pentachlorphenate	40 cu ft/20 cwt	187 0
Fertilisers—		
Manure	20 cwt	173 0
Plastic foam	40 cu ft	155 0
General cargo	40 cu ft/20 cwt	191 0

(*a*) Rates for commodities shipped in chartered vessels and bulkships not included. (*b*) Loaded and trimmed at no cost to shipping company. (*c*) Loaded, trimmed and unloaded at no cost to shipping company. (*d*) Rates quoted are from Melbourne, Sydney, Newcastle, and Port Kembla to New Zealand main ports, except Bluff which is an additional N.Z.5s. per ton. (*e*) Free in and trimmed. (*f*) Free in and out and trimmed.

OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966—*continued*

Country and article	Unit for which freight rate is quoted	Freight rate quoted
SOUTH AFRICA—		*Rates—Australian dollars and cents*
Wool dumped—		
Greasy	lb	3 73 cents
Scoured, etc.	lb	4 81 cents
General cargo	Ton weight or measurement	$30.25
UNITED KINGDOM AND CONTINENTAL EUROPE—		*Rates—Sterling*
Butter	Box 56 lb	£0 67
Cheese	Ton weight	£27 70
Eggs in shell	Ton measurement	£19.00
Meats, preserved by cold process—		
Beef, refrigerated, excluding carton	lb	4 11d.
Lamb, excluding carton	lb	5 08d.
Mutton, excluding carton	lb	4 11d.
Beef, carton	lb	2 97d.
Lamb, carton	lb	2 97d.
Mutton, carton	lb	2 97d.
Rabbits	Ton measurement	£15 70
Sausage casings in casks (refrigerated)	Ton measurement	£20 70
Sausage casings (not refrigerated)	Ton measurement	£12 45
Meats, not frozen	Ton weight	£12 45
Milk and cream condensed	Ton measurement	£12.45
Fruit—		
Canned	Ton measurement	£9 487
Dried	Ton measurement	£9.487
Fresh—		
Apples	Standard bushel case	£0 680
Citrus	Standard bushel case	£0 720
Pears	Standard bushel case	£0 680
Pears	¾ bushel case	£0 622
Grapes, grapefruit, oranges, lemons and plums	Standard bushel case	£0 792
	¾ bushel case	£0 738
	½ bushel case	£0 528
	½ bushel carton	£0 494
Grain and pulse, unprepared—		
Barley, in bags	Ton weight	£6.875
Wheat, parcels—		
Bagged	Ton weight	£6 750
Bulk	Ton weight	£5 750
Maize	Ton weight	£8 750
Oats, in bags	Ton weight	£7 375
Rice, paddy, unhusked	Ton weight	£10 000
Grain and pulse, prepared—		
Bran	Ton weight	£9 900
Pollard	Ton weight	£9 900
Flour, wheaten	Ton weight	£9 100
Rice, clean, husked	Ton weight	£9 350
Jams	Ton measurement	£9 850
Wine	Ton measurement	£11.850
Hides and skins—		
Calf	Ton weight	£18.032
Cattle	Ton weight	£56.60
Fox	Ton weight	
Kangaroo	Ton weight	
Opossum	Ton weight	
Rabbit and hare	Ton weight	
Wallaby	Ton weight	
Sheep, dumped	lb	2 98d.
Other	Ton weight	£56 60
Pearlshell	Ton measurement	£12 45
Trochus and green snail shell, bags or cases	Ton weight	£18.70
Wool—		
Greasy, dumped	lb	4 15d.
Scoured and washed, dumped	lb	5 20d.
Tops	lb	4 96d.
Bark, tanning	Ton weight	£12 45
Sandalwood in bags	Ton measurement	£12 45
Apparel and attire, effects	Ton weight or measurement	£19.50
Oils—		
Eucalyptus	Ton measurement	£12 45
Coconut	Ton weight	£14 10
Whale	Ton weight	£14 10
Other	Ton measurement	£14 10
Stearine	Ton weight	£14 10
Tallow, unrefined, in drums	Ton weight	£14.10
Ore in casks, bags or drums, n.e.i.	Ton weight	£7.55

(*a*) Rates for commodities shipped in chartered vessels and bulkships not included.

OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966(*a*)—*continued*

Country and article	Unit for which freight rate is quoted	Freight rate quoted
UNITED KINGDOM AND CONTINENTAL EUROPE—*continued*		*Rates—Sterling*
Zinc—		
Ex Risdon	Ton weight	£5.150
Other than above	Ton weight	£6.175
Dust in tins, sealed cases or new lined drums	Ton weight	£17.70
Copper	Ton weight	£5.85
Lead	Ton weight	£5.85
Steel billets—		
Up to 20 feet	Ton weight	£7.75
Over 20 feet and up to 30 feet	Ton weight	£8.30
Tin clippings, hydraulically pressed	Ton weight	£6.75
Leather	Ton weight	£27.40
Timber—		
Logs—		
Up to 40 feet	100 super feet	£4.35
Over 40 feet and up to 50 feet	100 super feet	£4.65
Over 50 feet and up to 60 feet	100 super feet	£5.00
Sawn undressed up to 30 feet—shipment of less than 50 tons	100 super feet	£2.30
Toilet paper	Ton measurement	£13.30
Stationery—		
Note paper and/or envelopes	Ton measurement	£20.50
Other than above	Ton measurement	£21.30
Casein	Ton weight	£16.30
Fertilisers	Ton measurement	£15.30
Soap	Ton measurement	£12.45
Gold and silver specie	*Ad valorem*	£0.750%
UNITED STATES OF AMERICA—ATLANTIC AND GULF PORTS—		*Rates—U.S. dollars*
Beef, preserved by cold process—		
Quarters, etc.	100 lb gross weight	4.65
Cartons	100 lb net weight	4.15
Casein	20 cwt	47.00
Fish, preserved by cold process—		
Loose	20 cwt	90.00
Cartons	100 lb net weight	4.50
Lead—		
Ores and concentrates	20 cwt	30.00
Mutton, preserved by cold process—		
Carcases	100 lb	5.00
Cuts in cartons	100 lb net weight	4.15
Pipes and tubes of iron and steel	20 cwt or 40 cu ft	33.00
Wool—		
Greasy	100 lb	5.25
Scoured, etc.	100 lb	6.30
General cargo	20 cwt or 40 cu ft	47.60

(*a*) Rates for commodities shipped in chartered vessels and bulkships not included.

Interstate rates per ton weight or measurement for general cargo at 31 December 1966 (expressed in Australian dollars) were: Sydney-Melbourne, $16.20; Sydney-Brisbane, $15.20; Sydney-Adelaide, $21.10; Sydney-Fremantle, $26.20; Sydney-Hobart, $16.35; Sydney-Darwin, $25.85.

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast during each of the years 1961–62 to 1965–66 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(*a*): AUSTRALIA, 1961-62 TO 1965-66

Year	Shipping losses			Other shipping casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1961–62 .	..	..	..	147	569,644	1	147	569,644	1
1962–63 .	..	..	..	122	468,326	..	122	468,326	..
1963–64 .	..	..	..	109	362,798	..	109	362,798	..
1964–65 .	..	..	..	87	315,762	..	87	315,762	..
1965–66 .	1	287	13	87	375,161	..	88	375,448	13

(*a*) Vessels over 50 net tons.

Lighthouses; distances by sea; depths of water and tides at main ports; ferry passenger services

A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars are available, will be found in *Transport and Communication*, Bulletin No. 46.

The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia were published in Year Book No. 48, page 525.

A table showing the depths of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*. For some major ports information is given in the chapter Local Government.

GOVERNMENT RAILWAYS

Six independent State Government railway authorities and one Commonwealth Government railway authority operate the major intrastate and interstate railway systems in Australia. Each system is managed by a Commissioner, or Commissioners, responsible to the Minister in charge of transport for the respective Governments. The various Government railway systems are as follows.

New South Wales Railways

An extensive 4 ft 8½ in gauge system is based on Sydney and extends throughout the State.

Victorian Railways

A 5 ft 3 in gauge system centred on Melbourne radiates throughout Victoria and into southern New South Wales. This is supplemented by a 4 ft 8½ in gauge line from Melbourne to the New South Wales border, and by a short length of 2 ft 6 in gauge line near Melbourne, used mainly for tourist purposes.

Queensland Railways

A 3 ft 6 in gauge line extends along the coast from Brisbane to Cairns, with branch lines inland from Brisbane, Rockhampton and Townsville. In addition, a 4 ft 8½ in gauge line extends from Brisbane to the New South Wales border, and a short length of 2 ft gauge line (used mainly for cane haulage) operates in the Innisfail area.

South Australian Railways

The main system, in the south-east of the State, is of 5 ft 3 in gauge. The railway system in Eyre Peninsula, as well as the line from Port Pirie to the New South Wales border, is of 3 ft 6 in gauge. The conversion of the latter line to 4 ft 8½ in gauge is in progress.

Western Australian Railways

In the southwest of the State there is an extensive 3 ft 6 in gauge system which extends as far as Meekatharra in the north and Kalgoorlie and Esperance in the east. A new 4 ft 8½ in gauge line between Perth and Kalgoorlie is being constructed.

Commonwealth Railways

This system comprises four separate railways. The Trans-Australian Railway, extending from Port Pirie to Kalgoorlie is of 4 ft 8½ in gauge as is that part of the Central Australia Railway from Port Augusta (Stirling North) to Maree. A further extension of this railway from Maree to Alice Springs is of 3 ft 6 in gauge, as is the North Australia Railway from Darwin to Birdum. The Australian Capital Territory Railway from Queanbeyan to Canberra is of 4 ft 8½ in gauge. In this chapter particulars of these four separate Commonwealth railways are grouped; however, separate particulars for each railway are shown in the annual bulletin *Transport and Communication.*

A graph showing the route-mileage and traffic of all Government railways from 1870 to 1966 appears on plate 32, opposite.

In addition to these Government railways there are a number of short but significant private railways in Australia. The majority were constructed for the haulage of coal, iron ore and other minerals to processing plants, ports or government railheads, but some handle general traffic and passengers also. The more important of the private railways operate from Whyalla to Iron Knob and Iron Baron (South Australia), from Maitland to Cessnock (New South Wales), from Broken Hill (New South Wales) to the South Australian border, and from Burnie to Zeehan (Tasmania). In the north-west of Western Australia private railways were brought into service during 1966 to haul iron ore from Mt Tom Price to King Bay, a distance of 180 miles and from Mt Goldsworthy to Finicane Island (Port Hedland), a distance of 70 miles.

Standardisation of railway gauges*

Government railways in Australia use a variety of track gauges ranging from 2 ft to 5 ft 3 in, but only in the case of the 3 ft 6 in, the 4 ft 8½ in and the 5 ft 3 in gauges are the route mileages extensive. The importance of the present measures to bring about railway standardisation largely derives from the many economic and political difficulties occasioned by these differences in track gauges.

Programmes for the standardisation of railways in Australia have been arranged on the basis of mutual agreement and collaboration between the Commonwealth and State Governments with the ratification of the Parliaments concerned. There is no national co-ordinating railway authority in Australia, but the Railway Commissioners discuss mutual problems and make inter-system working arrangements through the Australian and New Zealand Railways Conference.

Under various Commonwealth–State Standardisation Agreements approximately 420 route miles of standard (4 ft 8½ in) gauge track have been completed since 1956, and a further 680 route miles are expected to be completed by the end of 1968. Melbourne is now linked to Sydney and Brisbane by a standard gauge railway, and by 1968 it is expected that a direct standard gauge link will be available between Sydney and Perth. Bogie exchange facilities have been installed at Melbourne and Port Pirie (South Australia) to eliminate the physical transfer of goods between the rolling-stock of the standard gauge and that of the broad gauge systems serving Victoria and a large part of South Australia.

Early history of standardisation in Australia

The history of standardisation of railway track gauges in Australia goes back to before the construction of the first steam railway. During the 1840's the diversity of gauges in Great Britain was causing concern to railway administrators, and in 1846 the British Secretary for State for Colonies recommended a uniform gauge of 4 ft 8½ in for railway construction in the Colonies. At that time there were no steam powered railways in any Australian Colony.

In 1850, however, a private company submitted a proposal to construct the Sydney–Parramatta railway using a track gauge of 5 ft 3 in. This proposal was approved by the Governor-General and the Colonial Secretary, and in 1853 an Act was passed making it compulsory for all railways in New South Wales to be of 5 ft 3 in track gauge. The Governors of Victoria and South Australia accepted this as the standard gauge for Australia.

The following year the Company revised the proposed gauge and succeeded in having the 1852 Act repealed and a new Act passed setting the gauge for New South Wales at 4 ft 8½ in. This step was taken without reference to either South Australia or Victoria, where private companies had

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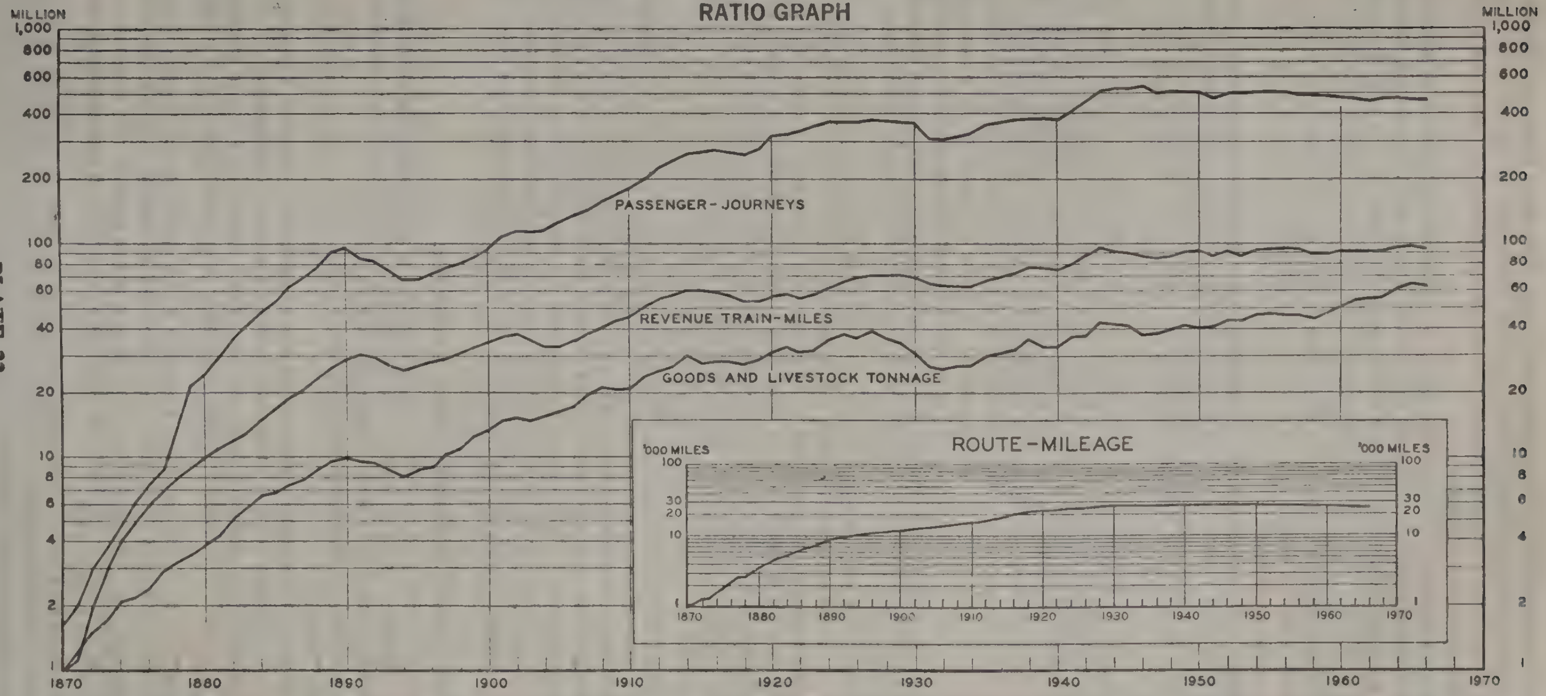
* The following article on standardisation of railway gauges was specially prepared for this issue of the Year Book by the Commonwealth Department of Shipping and Transport.

PLATE 32

GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1966

ROUTE MILEAGE AND TRAFFIC

RATIO GRAPH



NOTE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

placed large orders for 5 ft 3 in gauge rolling stock. Both these Colonies decided to adhere to the 5 ft 3 in gauge. On appeal to England it was decided that this was a local dispute and 'as the forests were so dense it was improbable that the lines would meet in any case'. This was the end of early attempts at standardisation.

The adoption of a 3 ft 6 in track gauge by Queensland, Western Australia and Tasmania, and the subsequent use of this gauge for certain lines in South Australia, appears to have been based on geographical, financial and economic factors. However, it is also likely that the possibility of links between States was still considered remote. The first interstate railway link was established in 1883 when the New South Wales and Victorian systems met at Albury. This was followed by a link between New South Wales and Queensland in 1888 and the Victorian-South Australian broad gauge link in 1889. (It was 1917 before Western Australia was linked with the railway systems of the other mainland States.)

Following the establishment of these early links the disadvantages of a break of gauge at State borders soon became evident, and in 1897 the Premiers of New South Wales, Victoria and South Australia agreed that a standard gauge was desirable. The Railway Commissioners met and recommended conversion of South Australia and Victoria to 4 ft 8½ in gauge, but no further action was taken.

The question was debated at a number of conferences between 1900 and 1920. The urgent necessity of the work was confirmed many times, but nothing was done. In 1920 the Premiers Conference considered a report and resolved that an expert committee be set up to consider the unification of gauges. This took the form of a Royal Commission. In 1921 the Royal Commission reported strongly in favour of a standard track gauge of 4 ft 8½ in and set out plans, costs and the order of conversion of two proposals; first the conversion of the main trunk lines between capital cities and secondly the conversion of all lines. Included in the plans were new standard gauge lines between Brisbane and Kyogle (New South Wales) and between Port Augusta and Lochiel (South Australia). Both lines reduced the distance between capitals and provided a lower maximum elevation on the route, which, in the case of the Sydney-Brisbane line, was reduced from 4,450 ft to 800 ft.

Commonwealth-State discussions followed the 1921 Royal Commission's report, but a general agreement was not reached. In 1924 the Commonwealth, New South Wales and Queensland Governments agreed to the extension of the Sydney-Kyogle standard gauge line to South Brisbane. This line was brought into service in 1930. In 1935 an agreement was reached between the Commonwealth and South Australian Governments whereby the Commonwealth was to extend the Trans-Australian standard gauge line, completed in 1917, from Port Augusta to Port Pirie and South Australia to provide a broad gauge line from Port Pirie to link with the broad gauge network at Red Hill. The work was completed and opened to traffic in 1937.

During the 1939–45 War considerable difficulty was experienced in Australia in the movement of military equipment and troops by rail, mainly because of the existence of break-of-gauge points, the lack of interchangeability of locomotives and rolling-stock between the major railway systems and the lack of uniformity in the technical standards of tracks. Consequently, in March 1944, the Commonwealth Government requested Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department of Transport, and formerly Chairman of Commissioners, Victorian Railways, to submit a report and recommendations regarding the standardisation of Australia's railway gauges on the basis of a 4 ft 8½ in gauge.

Report of Sir Harold Clapp and subsequent investigation

The report, which also covered the construction of certain strategic and developmental railways, was submitted in March 1945, and the projects recommended to be carried out in stages and estimated to cost $153,502,000 overall, were as follows.

(*a*) Construction of an independent standard gauge line from Fremantle-Perth to Kalgoorlie (419 miles).

(*b*) Conversion to standard gauge of the entire South Australian 5 ft 3 in gauge system and the 3 ft 6 in gauge lines of the South Eastern Division (1,760 miles).

(*c*) Conversion to standard gauge of the entire Victorian 5 ft 3 in gauge system, and the Upper Ferntree Gully-Emerald section of the Gembrook 2 ft 6 in gauge line (4,980 miles).

(*d*) Acquisition of the Silverton Tramway Company's line (36 miles) between Cockburn (South Australia) and Broken Hill (New South Wales) and the conversion to standard gauge of this line, as well as the 3 ft 6 in gauge lines of the Peterborough Division of the South Australian Railways (366 miles) to provide a standard gauge line between Port Pirie and Broken Hill.

(*e*) Provision of a standard gauge strategic and developmental railway linking Bourke (New South Wales) with Townsville and Dajarra (Queensland) by the construction of a new standard gauge line between Bourke and Longreach, via Cunnamulla, Charleville and Blackall, and the conversion of the Longreach-Hughenden, Townsville-Dajarra and tributary lines.

(*f*) Construction of a standard gauge strategic and developmental railway between Dajarra (Queensland) and Birdum (Northern Territory) and the conversion to standard gauge of the Birdum-Darwin line (961 miles).

Other recommendations were that, on agreement being reached between the Commonwealth and the States concerning the carrying out of the foregoing projects, arrangements were to be made for complete surveys, plans and estimates to be prepared for the standardisation of the Queensland and Western Australian Railways not covered by the proposals mentioned. For a detailed description of the report *see* Year Book No. 37, pages 146–8.

The conversion to standard gauge of the 3 ft 6 in gauge Central Australia Railway (Port Augusta to Alice Springs) and extension beyond the existing terminal at Alice Springs was not recommended, nor was the introduction of standard gauge in Tasmania.

As a further step towards standardisation, a Committee consisting of members of the Commonwealth Parliament, was formed in March 1956 to consider the practicability and desirability of standardising the main railway trunk lines on the Australian mainland. The Committee was invited to examine whether a more limited scheme than that envisaged in the Clapp Report could be devised without incurring the costs of complete conversion and without inhibiting the efficiency of operation of the various Government systems. The Committee recommended to the Commonwealth Government that standardisation of the major inter-capital routes was warranted. It was recommended that surveys should be carried out and plans prepared without delay, and that the Commonwealth should bear the cost of this detailed work. The Committee also examined questions of the method of construction, finance and timing, and the administration of the proposals, but did not make detailed recommendations on these matters.

Nature and scope of railway standardisation agreements

Arising out of Commonwealth-State discussions, which followed the report by Sir Harold Clapp, a Railway Standardisation Agreement was drawn up and signed by representatives of the Commonwealth, New South Wales, Victorian, and South Australian Governments. However, this agreement was not ratified by all Governments concerned and, therefore, was never implemented.

In October 1949 the Railway Standardisation (South Australia) Agreement was assented to by the Commonwealth Parliament. This Act authorised the execution by the Commonwealth Government of an agreement between the Commonwealth and South Australian Governments whereby a major part of the broad and narrow gauge railways owned and operated by the South Australian Railways would be converted to standard gauge. The agreement did not stipulate any period of time within which the works were to be undertaken or completed. The Act provided that the Commonwealth Government should undertake the conversion of other railways owned and operated by the Commonwealth Railways in South Australia and the Northern Territory, and that the acquisition and conversion of the Silverton Tramway should be carried out. The preamble to the agreement indicated that a uniform track gauge throughout Australia was desirable to assist in the defence and development of Australia, to facilitate interstate trade and commerce, and to secure maximum efficiency and economy in railway operation.

The agreement provided that the parties to the Agreement should set standards of design and construction essential to the establishment of standard gauge railways and to the safe and efficient operation of interchange traffic, including locomotives and all classes of rolling-stock over the unified railways of Australia. It was agreed that 70 per cent of the cost of standardisation should be borne by the Commonwealth and 30 per cent by the State. The Agreement also provided that the Commonwealth should meet the initial cost of the works specified and that the State should repay the Commonwealth 30 per cent of the expenditure over a period of fifty years together with interest. The agreement included stipulations regarding the cost of betterments and replacements, annual budgets of expenditure, audit, accounts, and records. The Agreement, with modifications, has been the basis on which subsequent agreements between the Commonwealth and the States of Victoria, New South Wales and Western Australia have been formulated.

The major Agreements which have been made and implemented since 1950 include:

1. The Brachina to Leigh Creek North Coalfield Railways 1950;
2. The Stirling North to Brachina Railway 1952;
3. The Leigh Creek North Coalfield to Marree (Conversion to Standard Gauge) Railway 1954;
4. The Railway Standardisation (New South Wales and Victoria) Agreement 1958;
5. The Railway Agreement (Western Australia) 1961.

The first three agreements refer to the construction of the Port Augusta to Marree standard gauge railway, which was completed in 1956 at a cost of approximately $24,000,000. The main purpose of these Agreements was to provide standard gauge access to the Leigh Creek brown coal deposits and was, therefore, in a different category to other standardisation works. This railway is operated by the Commonwealth Railways.

The New South Wales and Victoria Standardisation Agreement

The New South Wales and Victoria Standardisation Agreement followed the general format of the 1949 South Australian Agreement, but differed from it in substance in several important respects:

(*a*) the Commonwealth Government agreed to provide all funds to meet expenditure on the standardisation works as and when required by the States;

(*b*) the Commonwealth was not obliged to meet expenditure on any of the standardisation work incurred at any time subsequent to twelve calendar months after the commencement of a regular service on the standard gauge railway;

(*c*) provision was made to authorise variations of cost due to unforeseeable circumstances;

(*d*) the Agreement was appended by Schedules indicating:
  (i) the route of the standard gauge railway;
  (ii) the estimated cost of major items in the standardisation work;
  (iii) the standards to be adopted;

(*e*) the standardisation works were limited to the construction of a standard gauge railway on the main intercapital (Melbourne-Sydney) route.

The standardisation work comprised the construction of a main line permanent way and crossing loops between Albury Railway Station and Melbourne (Spencer Street), the construction of bridges and culverts, alterations to station yards, grade separation and level crossing protection, the provision of rolling-stock maintenance and freight handling facilities at Dynon Road in Melbourne, alterations to signalling, the installation of automatic power signalling with centralised traffic control, and the construction and conversion of rolling-stock.

Under the Agreement the States of New South Wales and Victoria were responsible for the execution of the standardisation works, and, with the approval of the Commonwealth Minister for Shipping and Transport, called public tenders for the execution of the works where desirable. There was a provision that expenditure was not to be incurred without the concurrence of the Commonwealth Minister. The States prepared detailed plans, specifications and estimates of costs for all works under the Agreement in collaboration with the Commonwealth.

The Western Australia Railway Agreement

The Railway Agreement (Western Australia) 1961 is an agreement ratified by the Commonwealth and Western Australian Governments to undertake certain standard gauge railway works, including the provision of rolling-stock, in Western Australia at an estimated cost of $82.4 million. The proposal is linked with the establishment of an integrated iron and steel industry at Kwinana, south of Perth. The new railway facilities will be used to transport iron ore from the Koolyanobbing deposits some thirty-three miles beyond Southern Cross. These railway facilities will also link Kalgoorlie with East Perth and Fremantle by a standard gauge line which will be open to passenger and general freight traffic.

It has been agreed that the project has standardisation and developmental components in approximately equal parts, and initially the Commonwealth will, in effect, provide finance for all the standardisation portion of the works and 70 per cent of the developmental portion. The State will repay with interest 30 per cent of the standardisation costs over fifty years and all the advance for developmental works over twenty years. Work on the project commenced in 1962 and is planned to be completed by December 1968.

The Agreement covers decisions in cases of disputes between the parties, the completion date, the definition of the nature of the work required for standardisation purposes, the preparation of programmes, plans and estimates, the authorisation of expenditure, expenditure after the completion date, the submission of annual estimates, and collaboration between the parties concerned regarding the standards of design, construction and operation of rolling-stock (including locomotives) for the facilitation of efficient inter-system traffic and co-ordinated services. The Schedules to the Agreement may be varied with the approval of the Commonwealth Minister for Shipping and Transport. There is provision also for the review of rolling-stock for conversion to standard gauge and other factors.

The estimated cost of $83,220,000 is based solely on the cost of materials and labour and on operational requirements prevailing at the end of 1960, and is specified in the Agreement as an indication of the extent of the works and the relative amounts to be expended on the various components and does not impose any limitation on the amount to be expended by the State Government.

The South Australian Standardisation Agreement

The conversion of the South Eastern Division of the South Australian Railways from 3 ft 6 in to 5 ft 3 in track gauge, completed in 1959, was carried out under the 1949 Railways Standardisation (South Australia) Agreement as a preliminary step toward eventual standardisation. The conversion to standard gauge of the narrow gauge line between Port Pirie and Cockburn, as part of the East-West standard gauge link, is also being carried out under this agreement. The South Australian Government has submitted to the Commonwealth Government a proposal in outline for the standardisation of the existing railway line between Port Pirie and Adelaide. The Commonwealth Government has made available $30,000 to South Australia for the surveying of this line without committing the Commonwealth to any further action.

Standards adopted

The basic standard adopted for standardisation works is a track gauge of 4 ft 8½ in with appropriate minimum structure and maximum rolling-stock outlines. Both in the conversion of tracks of other gauges to 4 ft 8½ in and the construction of new standard gauge railways, it is essential to ensure the efficient and economic interchange of rolling-stock, the facilitation of inter-system traffic, the co-ordination of designs and specifications of rolling-stock, and the co-ordination of services.

The standards of tracks, including weight of rail, sleepers, ballast, dogspikes, sleeper plates, and rail anchors, have varied slightly from project to project, depending on the nature of the traffic and other factors. Australian standard 94 lb rail, welded into lengths of up to 360 feet, and hardwood sleepers have been generally used. Earthworks, bridges and culverts also have varied from project to project according to the nature of the traffic, geological and topographical conditions, and nature of existing structures.

Grading has frequently been determined by the alignment of the existing track. On the major part of the Kalgoorlie-Perth standard gauge track currently under construction the ruling gradient will be 1 in 150. For curvature, a minimum radius of not less than forty chains is standard but has been reduced to ten chains where circumstances justify such a reduction.

Signalling and communications equipment standards have been determined mainly according to the nature of traffic requirements, terminal and intermediate marshalling facilities, the density and speed of traffic, and the peak line capacity. Centralised traffic control of one form or another has been a feature on trunk routes. Signalling and communications standards and techniques have been improved particularly to achieve higher average speeds made possible by the use of diesel locomotives and bogie rolling-stock.

In general, where railway authorities have undertaken works or provided for capacity or equipment in excess of standards established under the Agreements, such betterments have been undertaken at the expense of the State concerned. Works carried out under the Agreements have generally included the acquisition of land, the purchase, construction, alteration and conversion of railway lines, bridges, buildings, structures, workshops, plant, locomotives and rolling-stock, and other factors essential for standardisation. Work regarded as being outside the scope of the standardisation agreements includes the operation and maintenance of the standard gauge railway, betterments, and any rehabilitation programme which would be necessary independently of standardisation works.

The adoption of relatively uniform technical dimensions of track and equipment for standardisation projects has had the effect of encouraging the co-operation and simplification of other features of railway operations, including inter-system tariffs, documentation, maintenance and repair practices, and accounting procedures.

Operations of Government railways

Route-miles open for traffic

The following table shows the route-mileage of each Government railway system, according to gauge, at 30 June 1966.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE(*a*) OPEN, SYSTEMS, 30 JUNE 1966
(Miles)

System	Gauge					Total
	5 ft 3 in	4 ft 8½ in	3 ft 6 in	2 ft 6 in	2 ft 0 in	
New South Wales	..	(*b*) 6,055	..	..	..	6,055
Victoria	(*c*) 3,977	202	..	9	..	4,188
Queensland	..	69	5,686	..	30	5,785
South Australia	1,650	..	828	..	..	2,478
Western Australia	..	..	3,747	..	..	3,747
Tasmania	..	..	500	..	..	500
Commonwealth	..	(*d*) 1,330	(*e*) 922	..	..	2,252
Australia	5,627	7,656	11,683	9	30	25,005

(*a*) Mileage of railway irrespective of whether it consists of single or multiple track. Excludes sidings and crossovers. (*b*) Includes 234 route-miles which are electrified. (*c*) Excludes 202 miles of 5 ft 3 in gauge line which almost parallels the uniform gauge (4 ft 8½ in) line between Melbourne and the New South Wales border. Includes 263 route-miles which are electrified. (*d*) Trans-Australian Railway, Australian Capital Territory Railway and portion of Central Australia Railway. (*e*) North Australia Railway and portion of Central Australia Railway.

As the Commonwealth systems include mileages in South and Western Australia, and the Victorian system extends into New South Wales, the system route-mileages shown in the previous table do not represent mileages within each State and Territory. The mileages within each State and Territory at 30 June 1966 are shown in the next table.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES, 30 JUNE 1966

(Miles)

Gauge	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in.	(*a*) 204	(*b*)3,773	..	1,650	..	..	..	..	5 627
4 ft. 8½ in.	6,055	202	69	(*c*) 871	(*d*) 454	..	..	(*e*) 5	7,656
3 ft. 6 in.	..	..	5,686	(*f*)1,260	3,747	500	(*g*) 490	..	11,683
2 ft. 6 in.	..	9	..	..	..	..	..	..	9
2 ft. 0 in.	..	..	30	..	..	..	..	..	30
Total	6,259	3,984	5,785	3,781	4,201	500	490	5	25,005
Per 1,000 of population	1.49	1.25	3 51	3.51	5 09	1.35	13 53	0 05	2.18
Per 1,000 square miles	20.23	45.33	8.67	9.95	4.30	18.95	0.94	5.32	8.43

(*a*) Portion of Victorian system. (*b*) Excludes 202 miles of 5 ft 3 in gauge line which almost parallels the uniform gauge (4 ft 8½ in) line between Melbourne and the New South Wales border. (*c*) Includes 654 miles of Trans-Australian and 217 miles of the Central Australia Railway systems. (*d*) Portion of Trans-Australian Railway system. (*e*) Australian Capital Territory Railway system. (*f*) Includes 432 miles of the Central Australia Railway system. (*g*) Includes 173 miles of the Central Australia and 317 miles of the North Australia Railway systems.

The following table sets out route-mileages of Government railways in each State and Territory at various dates since the inauguration of railways in Australia in 1854.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES, 1855 TO 1966

(Miles)

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(*a*)	14	2	..	7	..	..	..	..	23
1861(*a*)	73	114	..	56	..	..	..	..	243
1871(*a*)	358	276	218	133	..	45	..	..	1,030
1881(*a*)	996	1,247	800	832	92	45	..	..	4,012
1891	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931	6,247	4,514	6,529	3,725	4,634	665	317	5	26,636
1941	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1961	6,303	4,050	6,324	3,836	4,577	517	490	5	26,102
1965	6,259	4,007	5,785	3,800	4,187	500	490	5	25,033
1966	6,259	3,984	5,785	3,781	4,201	500	490	5	25,005

(*a*) At 31 December.

Summary of operations

The following table shows a summary of the operations of the Australian Government railway systems during 1965–66.

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1965-66

System	Revenue train-miles (*a*)	Passenger journeys (*b*)	Passenger-miles (*c*)	Goods and livestock	
				Tons carried(*b*)	Net ton-miles(*d*)
	'000	'000	'000	'000	million
New South Wales	37,694	257.568	n.a.	26,917	4,255.2
Victoria	20,145	149,125	1,273,380	12,156	1,989.5
Queensland	17,640	25,979	n.a.	10,049	2,002.0
South Australia	6,492	15,511	122,720	4,789	749.3
Western Australia	8,043	10,168	67,826	6,384	1,020.8
Tasmania	1,283	1,304	7,062	1,072	113.4
Commonwealth	2,955	342	121,351	2,976	881.4
Australia(*b*)	**94,252**	**459,997**	**n.a.**	**64,343**	**11,011.6**

(*a*) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one mile for revenue purposes. (*b*) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes. (*c*) One passenger travelling one mile. (*d*) One ton carried one mile.

Gross earnings, working expenses, net earnings

Gross earnings are composed of earnings from (*a*) coaching traffic, including the carriage of passengers, mails, horses, parcels, etc., by passenger trains; (*b*) carriage of goods and livestock; and (*c*) rents and miscellaneous items. In this section particulars of State Government grants are excluded. Details of these grants made during 1965–66 are shown on page 449.

The following table shows gross earnings for the year 1965–66 classified according to the three main sources of earnings together with the percentage of the total derived from each source.

GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS SYSTEMS, 1965-66

System	Gross earnings ($'000)			Proportion of total (per cent)		
	Coaching	Goods (including livestock)	Miscellaneous	Coaching	Goods (including livestock)	Miscellaneous
New South Wales	48,147	136,921	10,268	24.65	70.09	5.26
Victoria	31,554	61,442	6,524	31.71	61.74	6.55
Queensland	9,052	72,535	2,590	10.75	86.17	3.08
South Australia	4,349	22,218	2,380	15.02	76.76	8.22
Western Australia	3,694	37,296	1,582	8.68	87.61	3.71
Tasmania	366	5,419	201	6.11	90.53	3.36
Commonwealth	2,773	14,070	1,248	15.33	77.77	6.90
Australia	**99,935**	**349,901**	**24,793**	**21.06**	**73.72**	**5.22**

Working expenses. In comparing the working expenses of the various railway systems, allowances should be made for the variation in gauges, terrain, traffic handled, and method of operation. In addition to variations between systems there are also variations on different portions of the same system. Working expenses, wherever presented in the Railways section of this chapter, include reserves for depreciation in the South Australian, Western Australian, Tasmanian and Commonwealth systems, but exclude interest, sinking fund, exchange and certain other payments (*see* page 449).

The following table shows the total working expenses for the year 1965–66 classified according to the four main expenditure headings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES SYSTEMS, 1965–66

($'000)

System	Maintenance of way and works	Motive power(*a*)	Traffic	Other charges	Total working expenses
New South Wales . .	30,640	61,324	43,767	44,062	179,792
Victoria	19,633	28,997	28,415	23,960	101,006
Queensland . . .	22,735	35,336	21,116	4,939	84,126
South Australia . .	(*b*) 7,317	(*b*) 11,954	(*b*) 8,886	4,232	(*b*) 32,388
Western Australia . .	(*b*) 8,855	(*b*) 16,785	9,519	4,570	(*b*) 39,730
Tasmania(*b*) . . .	1,936	2,637	2,034	940	7,547
Commonwealth . . .	5,545	4,700	2,782	(*b*) 4,289	17,316
Australia . . .	**96,661**	**161,733**	**116,519**	**86,992**	**461,905**

(*a*) Includes maintenance of rolling stock. (*b*) Includes provision for depreciation.

In the following table gross earnings, working expenses and net earnings are shown for the years 1961–62 to 1965–66.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, NET EARNINGS, SYSTEMS, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Gross earnings ($'000)—								
1961–62	176,702	85 114	72,318	27,848	35 098	5,406	12,482	414,968
1962–63	182,482	86,878	75,244	27 672	32,920	5,598	13,958	424,752
1963–64	202,488	92,778	84,260	29,496	34,602	5,668	15,194	464,486
1964–65	213,258	100,225	81,321	29,764	35,715	5,581	17,419	483,283
1965–66	195,336	99,519	84,178	28,947	42,571	5,985	18,091	474,627
Working expenses ($'000)—				(*a*)	(*a*)	(*a*)	(*a*)	
1961–62	159,190	85,812	76,170	31,206	34,908	6,878	*b* 10,330	404,494
1962–63	158,652	87,000	75,436	30,984	34,606	6,670	13,286	406,634
1963–64	177 416	91,512	78,288	30,910	35,802	6,894	14,218	435,040
1964–65	187,240	99,240	80,513	31,713	36,529	7,219	15,967	458,518
1965–66	179,792	101,006	84,126	32,388	39,730	7,547	17,316	461,905
Net earnings ($'000)(*c*)—								
1961–62	17,512	– 698	– 3,852	– 3,358	190	– 1,472	(*b*)2,152	10,474
1962–63	23,830	– 122	– 192	– 3,312	– 1,686	– 1 072	672	18,118
1963 64	25,072	1,266	5,972	– 1,414	– 1,200	– 1,226	976	29,446
1964–65	26,018	888	808	– 1,949	– 814	– 1,638	1,452	24,765
1965–66	15,544	– 1,486	52	– 3,441	2,841	– 1,561	775	12,723

(*a*) Includes provision for depreciation. (*b*) Excludes provision for depreciation. (*c*) Excess of gross earnings over working expenses as shown in this table.

Minus sign (–) denotes loss.

Net earnings, grants to railways, interest, sinking fund, surplus or deficit

The following table shows, for each railway system for the year 1965–66, (i) net earnings, (ii) State grants and other items credited to railways accounts, (iii) loan interest, exchange, sinking fund, etc., payments charged against the accounts, and (iv) the net surplus or deficit after these items have been taken into account. Particulars of items (ii) to (iv) are not included in the preceding tables in this section.

The figures shown in this table accord with those published in the Annual Reports of the Railways Commissioners of the several systems. Because of the differences in governmental practice concerning costs other than operative charged against railway accounts, compensation for non-paying and developmental lines, etc., and the inclusion in some railways finances of the operations of ancillary transport services, direct comparison cannot be made between the results shown in the table. For further information on railways finance, particularly expenditure from loan and other funds, *see* the chapter Public Finance of this Year Book. *See also* the Reports of the several Railways Commissioners.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT OF EACH SYSTEM AT 30 JUNE 1966

($)

System	Net earnings—excess of gross earnings over working expenses	*Plus* grants and other earnings payable to railways			*Less* other expenses charged to railways					Surplus (+) or deficit (−)
		State Government grants	Road motor earnings	Total	Interest and exchange	Sinking fund	Road motor expenses (*a*)	Other	Total	
N.S.W.	15,544,085	*b*3,200,000	..	3,200,000	24,941,090	5,435,000	..	*c* 619,050	30,995,140	−12,251,055
Vic.	−1,486,360	(*d*)30,583	68,925	99,508	3,854,207	175,707	146,152	..	4,176,066	−5,562,918
Qld	51,717	..	..	..	*e*15967279	*f* 67,036	..	*g* 591,533	16,625,848	*h* −16,574,131
S.A.	−3,441,083	*i* 8,000,000	190,830	8,190,830	5,302,082	..	201,289	*j* 257,128	5,760,499	−1,010,752
W.A.	2,841,476	..	1,097,831	1,097,831	6,970,465	..	959,895	..	7,930,360	−3,991,053
Tas.	−1,561,197	..	..	..	953,688	..	..	(*k*)16,088	969,776	−2,530,973
Total	*11,948,638*	*11,230,583*	*1,357,586*	*12,588,169*	*57,988,811*	*5,677,743*	*1,307,336*	*1,483,799*	*66,457,689*	*−41,920,882*
Cwlth	774,787	..	..	..	..	..	..	..	..	774,787
Aust.	**12,723,425**	**11,230,583**	**1,357,586**	**12,588,169**	**57,988,811**	**5,677,743**	**1,307,336**	**1,483,799**	**66,457,689**	**−41,146,095**

(*a*) Includes interest and exchange. (*b*) Grants to meet losses on country developmental lines and to subsidise payments due from superannuation account. (*c*) Loan management and loan flotation expenses. (*d*) Kerang-Koondrook tramway recoup from Treasury. (*e*) Interest on opened and unopened lines, interest and redemption—Mt Isa project fund, and interest on Queensland 4 ft 8½ in gauge system. (*f*) Charges on the Queensland 4 ft 8½ in gauge system. (*g*) Demolished assets written off. (*h*) Includes deficit ($533,766) on the Queensland 4 ft 8½ in gauge system. (*i*) Grants towards working expenses and debt charges. (*j*) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (*k*) Obsolete assets written off.

Traffic summary

GOVERNMENT RAILWAYS: TRAFFIC, SYSTEMS, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Passenger-journeys (*a*) (*b*) ('000)—	(*c*)							(*c*)
1961–62	252,719	152,768	26,700	15,176	11,906	1,816	315	461,400
1962–63	257,756	152,727	26,081	14,922	11,537	1,558	334	464,915
1963–64	263,796	153,396	25,903	15,227	10,814	1,426	338	470,900
1964–65	261,681	149,753	25,215	15,196	10,395	1,340	347	463,927
1965–66	257,568	149,125	25,979	15,511	10,168	1,304	342	459,997
Passenger-journeys per average route-mile worked (number)—	(*c*)							(*c*)
1961–62	41,682	35,602	4,369	5,994	3,092	3,519	140	18,012
1962–63	42,569	35,809	4,292	5,893	3,038	3,018	148	18,237
1963–64	43,567	36,161	4,276	6,057	2,941	2,828	150	18,611
1964–65	43,217	35,562	4,359	6,066	2,785	2,680	154	18,527
1965–66	42,538	35,599	4,491	6,244	2,714	2,608	152	18,391
Goods and livestock carried(*b*) ('000 tons)—								
1961–62	24,050	10,350	8,153	4,616	5,342	1,096	1,958	55,565
1962–63	23,641	10,841	8,736	4,503	4,793	1,165	2,230	55,909
1963–64	25,814	12,132	9,796	5,179	5,187	1,155	2,478	61,741
1964–65	27,889	12,596	10,031	5,089	5,229	1,091	2,919	64,844
1965–66	26,917	12,156	10,049	4,789	6,384	1,072	2,976	64,343
Goods and livestock carried per average route-mile worked (tons)—								
1961–62	3,967	2,412	1,334	1,823	1,387	2,124	869	2,169
1962–63	3,904	2,542	1,438	1,778	1,262	2,257	990	2,193
1963–64	4,263	2,860	1,617	2,060	1,411	2,291	1,100	2,440
1964–65	4,606	2,991	1,734	2,032	1,401	2,181	1,296	2,589
1965–66	4,445	2,902	1,737	1,928	1,704	2,143	1,321	2,572

(*a*) Suburban and country—based on ticket sales, making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (*b*) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes. (*c*) Figures for New South Wales, and consequently for Australia, for the years 1961–62 to 1964–65 have been revised to include unremunerative passenger-journeys in that State, but it has not been possible to distribute the revisions between suburban and country. The figures for these components shown in the tables on pages 450 and 451 therefore do not add to these totals.

Passenger traffic

With the exception of the Commonwealth railway systems, which operate only country services, all systems provide both suburban and country passenger services. Traffic classed as 'suburban' moves between stations within a classified suburban area around each capital city, while traffic classified as 'country' originates or terminates at stations outside this suburban area. Suburban and country passenger traffic are shown separately in the two tables following.

Suburban passenger traffic. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY, SYSTEMS 1961-62 TO 1965-66

Year	Suburban passenger-journeys (*a*)	Suburban passenger train-miles	Suburban passenger-miles	Average number of passengers per train-mile	Average mileage per passenger-journey	Suburban passenger earnings			
						Gross	Per passenger-journey	Per passenger-mile	Per passenger train-mile
	('000)	('000)	('000)		(miles)	($'000)	(cents)	(cents)	(cents)
New South Wales system—	(*b*)								
1961–62	221,861	11,250	n.a.	n.a.	n.a.	25,490	11.49	n.a.	227
1962–63	221,960	10,915				25,672	11.57	n.a.	235
1963–64	227,319	10,939				26,346	11.59	n.a.	241
1964–65	225,420	10,888				26,163	11.61	n.a.	240
1965–66	*c*242,216	10,788				25,838	10.67	n.a.	240
Victorian system—									
1961–62	147,977	8,296	1,299,379	157	8.78	18,012	12.17	1.38	217
1962–63	147,587	8,303	1,302,094	157	8.82	17,978	12.18	1.38	217
1963–64	148,314	8,369	1,315,105	157	8.87	18,056	12.17	1.37	216
1964–65	144,846	8,480	1,279,320	151	8.83	19,837	13.70	1.55	234
1965–66	144,332	8,458	1,273,380	151	8.82	20,254	14.03	1.59	239
Queensland system—									
1961–62	22,890	1,850	n.a.	n.a.	n.a.	1,954	8.54	n.a.	106
1962–63	22,413	1,706				1,932	8.62	n.a.	113
1963–64	22,512	1,742				1,924	8.55	n.a.	111
1964–65	22,254	1,778				1,896	8.52	n.a.	107
1965–66	23,227	1,820				1,970	8.48	n.a.	108
South Australian system—									
1961–62	14,211	1,962	114,852	59	8.08	1,562	10.99	1.36	80
1962–63	13,978	1,941	115,219	59	8.24	1,578	11.29	1.37	82
1963–64	14,332	1,967	120,110	61	8.38	1,634	11.40	1.36	83
1964–65	14,326	1,951	119,232	61	8.32	1,711	11.94	1.43	88
1965–66	14,671	1,950	122,720	63	8.36	1,781	12.14	1.45	91
Western Australian system—									
1961–62	11,308	1,355	78,469	58	6.94	938	8.29	1.19	69
1962–63	10,937	1,334	76,312	57	6.98	924	8.44	1.21	69
1963–64	10,298	1,368	71,468	52	6.94	954	9.27	1.33	70
1964–65	9,911	1,375	69,824	51	7.05	977	9.86	1.40	71
1965–66	9,748	1,328	67,826	51	6.96	1,018	10.44	1.50	77
Tasmanian system—									
1961–62	1,585	188	9,778	52	6.17	112	7.01	1.13	59
1962–63	1,347	135	8,385	62	6.23	98	7.25	1.17	72
1963–64	1,229	137	7,664	56	6.24	90	7.33	1.17	66
1964–65	1,135	136	7,208	53	6.35	84	7.38	1.16	61
1965–66	1,097	135	7,062	52	6.44	82	7.45	1.16	60

(*a*) *See* footnote (*a*) to table on page 449. (*b*) *See* footnote (*c*) to table on page 449. (*c*) Includes unremunerative passenger-journeys, previously excluded.

Country passenger traffic

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY, SYSTEMS 1961-62 TO 1965-66

Year	Country passenger-journeys (a) ('000)	Country passenger train-miles (b) ('000)	Country passenger-miles ('000)	Average number of passengers carried per train (c)	Average mileage per passenger-journey (miles)	Country passenger earnings			
						Gross ($'000)	Per passenger-journey (cents)	Per passenger-mile (cents)	Per passenger train-mile (d) (cents)
New South Wales system—									
1961–62	(e) 12,777	10,410	n.a.	n.a.	n.a.	13,896	(e) 108.76	n.a.	133
1962–63	13,209	10,475				14,832	112.27	n.a.	142
1963–64	13,358	10,576				15,298	114.53	n.a.	145
1964–65	13,312	10,461				15,571	116.97	n.a.	149
1965–66	(f)15,352	10,409				15,314	99.75	n.a.	147
Victorian system—									
1961–62	4,791	4,726	413,435	87	86.31	6,946	145.01	1.68	147
1962–63	5,140	4,829	418.887	87	81.50	7,062	137.41	1.68	147
1963–64	5,082	4,835	410,830	85	80.84	7,082	139.35	1.72	147
1964–65	4,907	4,837	403,640	83	82.26	7,553	153.91	1.87	156
1965–66	4,793	4,738	396,226	84	82.68	7,509	156.68	1.90	158
Queensland system—									
1961–62	3,810	4,714	n.a.	n.a.	n.a.	4,756	124.79	n.a.	101
1962–63	3,668	4,689				4,698	128.09	n.a.	100
1963–64	3,391	4,608				4,450	131.22	n.a.	97
1964–65	2,961	4,092				4,140	139.81	n.a.	101
1965–66	2,752	4,053				3,988	144.90	n.a.	98
South Australian system—									
1961–62	965	2,043	100,591	49	104.24	1,676	173.75	1.67	82
1962–63	944	2,014	99,761	50	105.69	1,692	179.32	1.70	84
1963–64	895	1,954	96,877	50	108.20	1,658	185.11	1.71	85
1964–65	870	1,944	96,835	50	111.32	1,665	191 44	1.72	86
1965–66	840	1,923	95,410	50	113.53	1,655	196.98	1.74	86
Western Australian system—									
1961–62	598	1,184	74,230	63	124.12	1,342	224.25	1.81	113
1962–63	600	1,121	75,684	67	126.19	1,338	223 09	1.77	119
1963–64	516	982	66,753	68	129.39	1,342	260.31	2.01	137
1964–65	484	984	68.064	69	140.64	1,469	303 44	2.16	149
1965–66	419	966	66,968	69	159.68	1,454	346.65	2.17	151
Tasmanian system—									
1961–62	231	324	12,745	39	55.10	160	68 90	1.25	49
1962–63	211	318	12,255	39	58.19	156	74.27	1.27	49
1963–64	197	314	11,380	36	57.98	144	73.16	1.26	46
1964–65	205	307	12,355	47	60.27	140	68 52	1.14	54
1965–66	207	314	11,132	35	53.68	139	66.89	1.25	44
Commonwealth system—									
1961–62	315	923	100,604	109	319.15	1,808	573.81	1.80	196
1962–63	334	939	107,991	115	322.99	1,914	572 16	1.77	203
1963–64	338	898	107,005	119	316.20	1,916	565.96	1.79	213
1964–65	347	907	120.977	133	348.89	2.172	626 37	1.80	240
1965–66	342	886	121,351	137	354.99	2,246	657.06	1.85	253

(a) *See* footnote (a) to table on page 449. (b) Includes a passenger portion of mixed train-miles. (c) Passenger-miles divided by passenger train-miles inclusive of a passenger portion of mixed train-miles. (d) Passenger earnings divided by passenger train-miles inclusive of a passenger portion of mixed train-miles. (e) *See* footnote (c) to table on page 449. (f) Includes unremunerative passenger journeys previously excluded.

Freight traffic

The following two tables show the quantities of commodities carried on the various systems, the earnings derived, and other related statistics.

GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS SYSTEMS, 1965-66

System	Coal, coke and briquettes	Other minerals (*a*)	Agricultural produce (*b*)	Wool	Livestock	All other commodities	Total
			QUANTITY CARRIED(*c*) ('000 tons)				
New South Wales	12,148	2,638	2,629	192	436	8,874	26 917
Victoria	2,129	138	3,193	133	239	6,324	12,156
Queensland	3,317	716	3,094	37	746	2,139	10,049
South Australia	6	1,367	1,043	29	118	2,226	4,789
Western Australia	678	1,102	2,406	100	107	1,991	6,384
Tasmania	75	24	42	4	20	907	1,072
Commonwealth	1,989	50	33	4	83	817	2,976
Australia	**20,342**	**6,035**	**12,440**	**499**	**1,749**	**23,278**	**64,343**
			FREIGHT EARNINGS ($'000)				
New South Wales	n.a.	n.a.	n.a.	n.a.	4,946	n.a.	136,921
Victoria	6,745	387	17,431	1,227	1,478	34,174	61,442
Queensland	11,114	5,979	14,829	1,394	9,458	29,761	72,535
South Australia	21	7,126	3,773	245	851	10,202	22,218
Western Australia	2,289	2,396	12,674	1,465	842	17,630	37,296
Tasmania	322	57	253	37	123	4,627	5,419
Commonwealth	2,276	351	331	61	553	10,498	14,070
Australia	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**18,251**	**n.a.**	**349,901**

(*a*) Includes sand and gravel. (*b*) Includes wheat and fruit. (*c*) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY, SYSTEMS, 1961-62 TO 1965-66

Year	Revenue goods train-miles (*a*)	Revenue net ton-miles	Average train load (paying traffic) (*b*)	Average haul per ton (*c*)	Goods and livestock earnings				Density of traffic (*e*)
					Gross	Per average route-mile worked	Per revenue net ton-mile	Per revenue goods train-mile (*d*)	
	('000)	(million)	(tons)	(miles)	($'000)	($)	(cents)	(cents)	('000)
New South Wales system—									
1961–62	15,786	3,576	227	149	122,848	20,262	3.43	778	590
1962–63	15,971	3,743	234	158	126,646	20,916	3.38	793	618
1963–64	17,563	4,282	244	166	144,646	23,888	3.37	823	707
1964–65	18,845	4,706	250	169	154,543	25,523	3.28	820	777
1965–66	16,498	4,255	258	158	136,921	22,613	3.22	830	703
Victorian system—									
1961–62	5,880	1,581	269	153	51,466	11,994	3.26	875	368
1962–63	6,345	1,693	267	156	53,016	12,430	3.13	836	397
1963–64	6,909	1,906	276	157	58,730	13,846	3.08	850	449
1964–65	7,172	2,028	283	161	63,361	15,047	3.12	883	482
1965–66	6,949	1,990	286	164	61,442	14,667	3.09	884	475
Queensland system (*f*)—									
1961–62	11,000	1,497	136	184	60,353	9,876	4.03	549	245
1962–63	11,557	1,600	138	183	63,462	10,443	3.97	549	263
1963–64	12,811	1,887	147	193	72,371	11,946	3.83	565	312
1964–65	11,735	1,801	153	180	69,696	12,048	3.87	594	311
1965–66	11,767	2,002	170	199	72,535	12,539	3.62	616	346

For footnotes *see* next page.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY, SYSTEMS, 1961–62 TO 1965–66 —*continued*

Year	Revenue goods train-miles (*a*)	Revenue net ton-miles	Average train load (paying traffic) (*b*)	Average haul per ton (*c*)	Goods and livestock earnings				Density of traffic (*e*)
					Gross	Per average route-mile worked	Per revenue net ton-mile	Per revenue goods train-mile (*d*)	
	('000)	(million)	(tons)	(miles)	($'000)	($)	(cents)	(cents)	('000)
South Australian system—									
1961–62	2,733	650	238	141	21,760	8,594	3.35	797	257
1962–63	2,771	679	245	151	21,494	8,488	3.17	776	268
1963–64	2,745	754	275	146	23,170	9,216	3.07	844	300
1964–65	2,687	765	285	150	23,096	9,220	3.02	860	306
1965–66	2,619	749	286	156	22,218	8,945	2.97	848	302
Western Australian system—									
1961–62	5,526	831	150	156	30,228	7,850	3.63	547	216
1962–63	5,095	762	150	159	28,126	7,408	3.69	552	201
1963–64	5,156	813	158	157	29,788	8,100	3.66	577	221
1964–65	5,203	842	162	161	30,688	8,221	3.64	590	226
1965–66	5,749	1,021	178	160	37,296	9,954	3.65	649	272
Tasmanian system—									
1961–62	903	107	119	98	4,822	9,346	4.51	534	207
1962–63	869	112	129	96	5,044	9,774	4.51	580	217
1963–64	871	114	131	99	5,138	10,192	4.51	590	226
1964–65	873	117	133	107	5,019	10,039	4.31	575	233
1965–66	834	113	136	106	5,419	10,838	4.78	650	227
Commonwealth system—									
1961–62	1,530	581	380	297	9,342	4,148	1.61	611	258
1962–63	1,610	664	412	298	10,662	4,734	1.61	662	295
1963–64	1,770	744	421	300	11,832	5,254	1.59	668	331
1964–65	2,007	886	441	303	13,593	6,036	1.53	677	393
1965–66	2,069	881	426	296	14,070	6,248	1.60	680	391

(*a*) Includes a proportion of mixed train-miles. (*b*) Net ton-miles per goods (including a portion of mixed) train-mile. (*c*) Net ton-miles per ton carried. (*d*) Goods and livestock earnings divided by goods train-miles, inclusive of a proportion of mixed train-miles. (*e*) Total net ton-miles per average route-mile worked. (*f*) Series revised to include Queensland portion of uniform gauge railway.

Rolling stock

GOVERNMENT RAILWAYS: ROLLING STOCK(*a*), SYSTEMS, 30 JUNE 1966

System	Locomotives					Coaching stock(*c*)	Goods stock	Service stock
	Steam	Diesel-electric	Electric	Other (*b*)	Total			
New South Wales	431	269	41	23	764	(*d*) 3,453	(*d*)20,228	(*e*) 2,307
Victoria	181	185	35	68	469	(*d*) 2,427	(*d*)21,097	(*d*) 1,663
Queensland	576	170	. .	11	757	1,373	23,060	1,968
South Australia	144	109	. .	. .	253	(*d*) 584	7,760	(*d*) 512
Western Australia	238	98	. .	20	356	514	12,001	889
Tasmania	20	37	. .	20	77	133	2,352	172
Commonwealth	1	57	. .	8	66	151	1,638	479
Australia	**1,591**	**925**	**76**	**150**	**2,742**	**(*f*) 8,748**	**(*f*)88,205**	**(*f*) 7,987**

(*a*) Included in capital account. (*b*) Includes non-passenger-carrying diesel power vans. (*c*) Includes all brake vans. (*d*) Excludes stock jointly owned with other systems. (*e*) Includes vehicles not having a capital value. (*f*) Includes jointly owned stock.

GOVERNMENT RAILWAYS: ROLLING STOCK(*a*), AUSTRALIA, 1962 TO 1966

30 June—	Locomotives					Coaching stock(*c*)	Goods stock	Service stock
	Steam	Diesel-electric	Electric	Other(*b*)	Total			
1962 . .	2,456	541	76	123	3,196	9,177	91,094	7,976
1963 . .	2,215	608	76	132	3,031	8,969	90,020	7,960
1964 . .	1,981	694	76	140	2,891	8,829	88,929	7,944
1965 . .	1,782	821	76	147	2,826	8,777	88,781	8,144
1966 . .	1,591	925	76	150	2,742	8,748	88,205	7,987

(*a*) Included in capital account. (*b*) Includes non-passenger-carrying diesel power vans. (*c*) Includes all brake vans.

Accidents

The following table shows particulars of the number of persons killed or injured through train accidents and the movement of rolling stock on the Government railways of Australia during 1965–66.

GOVERNMENT RAILWAYS: ACCIDENTS(*a*), SYSTEMS, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Persons killed . .	51	49	9	9	13	3	. .	134
Persons injured . .	473	722	125	45	66	9	24	1,464

(*a*) Excludes accidents to railway employees.

Consumption of coal, oil and petrol

GOVERNMENT RAILWAYS: VALUE OF COAL, OIL AND PETROL CONSUMED, 1965-66
($'000)

	N.S.W.	Vic.	Qld (*a*)	S.A.	W.A.	Tas.	Total States	Cwlth	Aust.
Coal used—									
In locomotives . . .	n.a.	578	1,587	160	938	5	n.a.	. .	n.a.
For other purposes . .	n.a.	44	46	32	17	1	n.a.	1	n.a.
Oil used—									
In diesel engines of locomotives and rail cars . .	3,202	986	1,764	760	652	172	7,536	659	8,195
In furnaces of steam locomotives	65	410	. .	38	. .	. .	513	. .	513
For lubrication . .	398	240	73	n.a.	305	36	n.a.	84	n.a.
For other purposes . .	315	189	219	n.a.	221	12	n.a.	66	n.a.
Petrol used in rail cars . .	. .	. .	. .	. .	9	. .	9	1	10

(*a*) Queensland portion of uniform gauge railway included with New South Wales.

Staff employed and salaries and wages paid

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES, AND SALARIES AND WAGES PAID, SYSTEMS, 1965-66

System	Operating staff			Construction staff			Total salaries and wages paid	Average earnings per employee
	Salaried	Wages	Total	Salaried	Wages	Total	($'000)	($)
New South Wales	9,231	36,916	46,147	3	6	9	125,783	2,725
Victoria	(*a*) 5,461	(*a*)22,750	(*a*)28,211	(*b*)	(*b*)	(*b*)	77,882	2,761
Queensland(*c*)	4,310	21,310	25,620	. .	78	78	67.300	2.619
South Australia	1,806	6,246	8 052	28	1,049	1,077	24.755	2,712
Western Australia	2,029	9,316	11.345	. .	. .	. .	30,103	2.653
Tasmania	379	1,781	2.160	30	143	173	5,651	2.422
Commonwealth	494	2,458	2,952	. .	. .	. .	8,995	3,047
Australia	**23,710**	**100,777**	**124,487**	**61**	**1,276**	**1,337**	**340,469**	**2,706**

(*a*) Includes construction staff. (*b*) Included with operating staff. (*c*) Excludes Queensland portion of uniform gauge railway.

TRAMWAY, TROLLEY-BUS, OMNIBUS, AND FERRY SERVICES

Systems in operation

Tramway and trolley-bus. Since 1 April 1947 all systems have been operated by government or municipal authorities. During the year 1965–66, tramway systems were in operation in the following cities: Melbourne, Bendigo, and Ballarat, Victoria; Brisbane, Queensland; and Adelaide, South Australia. Trolley-bus services operated in Brisbane, Queensland; Perth, Western Australia; and Hobart and Launceston, Tasmania. All systems were electric.

In many parts of Australia private lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

Motor omnibus. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal omnibus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Maryborough and Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways and the Tasmanian Transport Commission. In Sydney the Government tramway system has been replaced by omnibus services, and in Perth the Metropolitan (Perth) Passenger Transport Trust has replaced privately owned services in the metropolitan area. In Hobart the Government trolley-bus and omnibus services have replaced the Government tramway service. Particulars of motor omnibus services under the control of private operators for the States of New South Wales, Victoria, Queensland, South Australia, and Western Australia are given in previous issues of this Year Book and in the annual bulletin *Transport and Communication.*

Ferry. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Mersey River at Devonport. Control is exercised by both governmental authorities and private operators. Particulars of the operations of these services are given in previous issues of this Year Book and in the annual bulletin *Transport and Communication.* In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tramway, trolley-bus and omnibus services

Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway services by motor omnibus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations. The two following tables present combined statistics of public tramway, trolley-bus and motor omnibus services with separate details shown for each form of transport where possible.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, STATES AND TERRITORIES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-miles at 30 June—									
Tram(*a*) . . . miles	..	156	59	7	..	..	..	..	222
Trolley-bus . . . ,,	..	..	20	..	17	28	..	..	65
Omnibus . . . ,,	593	123	310	142	4,342	923	32	68	6,533
Vehicle miles—									
Tram . . . . '000	..	17,439	5,953	486	..	..	..	..	23,878
Trolley-bus . . . ,,	..	..	1,126	..	645	1,120	..	..	2,891
Omnibus . . . ,,	44,759	6,763	6,813	10,849	19,479	5,175	625	1,967	96,430
Rolling stock at 30 June—									
Tram . . . number	..	782	261	28	..	..	..	..	1,071
Trolley-bus . . ,,	..	..	36	..	50	66	..	..	152
Omnibus . . ,,	1,756	319	341	350	648	245	18	99	3,776
Passenger-journeys—									
Tram . . . . '000	..	144,889	56,011	2,279	..	..	..	..	203,179
Trolley-bus . . . ,,	..	..	5,979	..	(*b*)	(*b*)	..	..	} 450,015
Omnibus . . . ,,	255,211	25,120	30,456	50,833	53,179	22,750	926	5,561	
Gross revenue(*c*)—									
Tram, trolley-bus and omnibus $'000	25,130	17,846	8,030	6,049	6,585	2,387	136	537	66,700
Working expenses(*d*)—									
Tram, trolley-bus and omnibus $'000	29,012	19,019	8,332	5,806	7,398	3,008	137	732	73,444
Net revenue—									
Tram, trolley-bus and omnibus $'000	−3,882	−1,173	−302	243	−813	−621	−1	−195	−6,744
Employees at 30 June—									
Tram, trolley-bus and omnibus number	7,368	4,801	2.475	1,482	2,017	704	29	131	19,007
Accidents—									
Tram, trolley-bus and omnibus(*e*)—									
Persons killed number	1	20	2	1	2	1	..	1	28
Persons injured ,,	1,251	621	56	211	280	40	1	14	2,474

(*a*) Gauge 4 feet 8½ inches throughout. (*b*) Included with omnibus services. (*c*) Excludes government grants. (*d*) Includes provision of reserves for depreciation, etc., where possible. (*e*) Excludes accidents to employees.

Minus sign (−) denotes deficit.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, AUSTRALIA, 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66
Route-miles at 30 June—					
Tram . . . . miles	229	223	227	222	222
Trolley-bus . . . „	88	88	65	65	65
Omnibus . . . „	5,777	5,735	5,921	6,460	6,533
Vehicle miles—					
Tram . . . . '000	28,034	26,363	25,689	24,552	23,878
Trolley-bus . . . „	93,647	94,883	96,272	98,201	2,891
Omnibus . . . „					96,430
Rolling stock at 30 June—					
Tram . . . number	1,190	1,124	1,101	1,099	1,071
Trolley-bus . . „	240	208	152	152	152
Omnibus . . „	3,450	3,474	3,540	3,680	3,776
Passenger-journeys—					
Tram . . . . '000	248,396	237,929	231,348	218,086	203,179
Trolley-bus and omnibus . „	469,549	474,194	471,085	466,524	450,015
Gross revenue(a)—					
Tram, trolley-bus and omnibus $'000	63,514	63,394	63,688	65,110	66,700
Working expenses(b)—					
Tram, trolley-bus and omnibus $'000	68,412	67,344	67,890	70,519	73,444
Net revenue—					
Tram, trolley-bus and omnibus $'000	−4,898	−3,950	−4,202	−5,409	−6,744
Employees at 30 June—					
Tram, trolley-bus and omnibus number	20,607	19,986	19,346	18,841	19,007
Accidents—					
Tram, trolley-bus and omnibus(c)—					
Persons killed . number	42	32	38	44	28
Persons injured . „	3,076	2,915	2,839	2,606	2,474

(a) Excludes government grants. (b) Includes provision of reserves for depreciation, etc., where possible. (c) Excludes accidents to employees.

Minus sign (—) denotes deficit.

MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30 June 1960 were given in Year Book No. 47, pages 553–6, and at 30 June 1963 in *Transport and Communication*, Bulletin No. 54, 1962–63.

Motor vehicles on register; licences

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments, and the Commonwealth Government (excluding those belonging to the defence services).

Census of Motor Vehicles, 1962

A census of motor vehicles on register at 31 December 1962 was conducted by the Commonwealth Statistician in co-operation with the Deputy Commonwealth Statisticians and the motor vehicle registration authorities. The census covered items shown on the motor vehicle registration certificate such as make of vehicle, year of model, type of vehicle, horsepower, motive power, location (i.e. address on registration certificate), ownership (private, government, etc.), and for specific types of vehicles such items as unladen weight, carrying capacity, passenger capacity, and in some States gross vehicle weight. Details were published in printed bulletins for each State and Territory and for Australia, and in issue No. 54, 1962–63 of the annual bulletin *Transport and Communication*. Year Book No. 50, 1964, contains summarised particulars of the census (pages 591–4). Reference is made to the publication of results of previous enumerations of this nature in Year Book No. 51 (page 571).

The following table contains a summary for each State and Territory of the number of motor vehicles of each type on the register at 31 December 1962. The total number of each type recorded for Australia at the previous motor vehicle census (31 December 1955) is included for purposes of comparison.

CENSUS OF MOTOR VEHICLES, 31 DECEMBER 1962: TYPES OF VEHICLE STATES AND TERRITORIES

State or Territory	Motor cars (*a*)	Station wagons	Utilities	Panel vans	Trucks	Other truck-types	Omni-buses	Motor cycles	Total motor vehicles (*b*)
New South Wales	742,947	85,746	137,138	49,479	84,670	2,822	5,004	20,398	1,128,204
Victoria	611,497	69,528	94,470	31,328	76,591	2,890	3,409	15,802	905,515
Queensland	255,513	31,086	90,434	13,184	39,932	448	1,815	13,963	446,375
South Australia	220,010	18,895	38,539	9,678	31.684	982	1,580	16,717	338,085
Western Australia	149,799	15,838	37,784	8,585	27,256	541	1,365	12,257	253,425
Tasmania	69,020	6,677	11,183	6,364	8,487	301	940	2,101	105,073
Northern Territory	4,321	1,258	2,806	471	1,326	73	91	325	10,671
Australian Capital Territory	15,591	2,408	1,802	808	935	34	115	296	21,989
Australia, 31 Dec. 1962 no.	**2,068,698**	**231,436**	**414,156**	**119,897**	**270,881**	**8,091**	**14,319**	**81,859**	**3,209,337**
per cent	**64.5**	**7.2**	**12.9**	**3.7**	**8.4**	**0.3**	**0.4**	**2.6**	**100.0**
Australia, 31 Dec. 1955 no.	1,356,682	15,948	*c*361,970	*c*53,808	250,630	5.884	10,142	127,129	2,182,193
per cent	62.2	0.7	16.6	2.5	11.5	0.3	0.4	5.8	100.0

(*a*) Includes ambulances and hearses. (*b*) Excludes tractors, trailers, plant and equipment, etc. (*c*) Queensland panel vans are included with utilities.

Motor vehicles on register, etc.

The following table shows particulars of the number of motor vehicles on register and the number per 1,000 of population at 31 December 1966.

MOTOR VEHICLES(*a*) ON REGISTER: STATES AND TERRITORIES 31 DECEMBER 1966

State or Territory	Motor cars, station wagons, ambulances, hearses	Utilities, panel vans, trucks(*b*), omnibuses	Motor cycles	Total(*c*)	Per 1,000 of population
New South Wales . . .	1,087,490	295,448	21,026	1,403,964	329
Victoria	877,679	220,327	11,811	1,109,817	342
Queensland	410,583	156,838	12,637	580,058	346
South Australia . . .	307,630	84,989	11,808	404,427	368
Western Australia . . .	231,916	86,554	8,857	327,327	385
Tasmania	99,947	31,184	1,562	132,693	355
Northern Territory . . .	9,722	6,023	466	16,211	421
Australian Capital Territory .	32,272	5,311	547	38,130	381
Australia	**3,057,239**	**886,674**	**68,714**	**4,012,627**	**344**

(*a*) On a basis comparable with the Census of Motor Vehicles, 1962. All figures are subject to revision. (*b*) Includes other truck-types. (*c*) Excludes tractors, trailers, plant and equipment, etc.

The table following shows a summary for Australia of the number of motor vehicles on register and the number per 1,000 of population at 31 December each year 1961 to 1966.

MOTOR VEHICLES ON REGISTER: AUSTRALIA, 1961 TO 1966

31 December—	Motor cars, station wagons, ambulances, hearses	Utilities, panel vans, trucks(*a*), omnibuses	Motor cycles	Total(*b*)	Per 1,000 of population
1961(*c*) . . .	2,126,339	803,551	88,855	3,018,745	285
1962(*d*) . . .	2,300,134	827,344	81,859	3,209,337	297
1963(*e*) . . .	2,498,925	844,481	74,719	3,418,125	311
1964(*e*) . . .	2,707,018	862,397	69,517	3,638,932	324
1965(*e*) . . .	2,893,146	872,185	67,417	3,832,748	335
1966(*e*) . . .	3,057,239	886,674	68,714	4,012,627	344

(*a*) Includes other truck-types. (*b*) Excludes tractors, trailers, plant and equipment, etc. (*c*) Estimates on a basis comparable with the Censuses of 1955 and 1962. (*d*) Census figures. (*e*) Subject to revision.

The table following shows the number of motor vehicles on register per 1,000 of population in each State and Territory at 31 December for each of the years 1962 to 1966.

MOTOR VEHICLES(*a*) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES, 1962 TO 1966

31 December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1962(*b*) . .	281	301	287	340	331	293	373	316	297
1963(*c*) . .	294	314	303	349	343	308	392	342	311
1964(*c*) . .	309	325	322	359	352	324	405	354	324
1965(*c*) . .	320	334	336	362	366	339	408	367	335
1966(*c*) . .	329	342	346	368	385	355	421	381	344

(*a*) Excludes tractors, trailers, plant and equipment, etc. (*b*) Census figures. (*c*) Subject to revision.

Drivers' and riders' licences

At 30 June 1966 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 1,622,189; Victoria, 1,259,477; South Australia, 457,374; Western Australia, 345,412; Tasmania, 142,100; Australian Capital Territory, 52,038. Particulars are not available for Queensland and the Northern Territory.

Registrations of new motor vehicles

REGISTRATIONS OF NEW MOTOR VEHICLES: STATES AND TERRITORIES, 1966

State or Territory	Motor cars and station wagons	Utilities, panel vans, trucks and omnibuses (*a*)	Motor cycles	Total
New South Wales . .	109,675	24,053	4,079	137,807
Victoria	85,073	16,528	1,413	103,014
Queensland . . .	41,159	12,063	1,653	54,875
South Australia . .	28,744	6,110	1,097	35,951
Western Australia . .	26,427	8,925	893	36,245
Tasmania . . .	10,304	2,706	272	13,282
Northern Territory . .	1,172	850	176	2,198
Australian Capital Territory	3,925	656	122	4,703
Australia . . .	**306,479**	**71,891**	**9,705**	**388,075**

(*a*) Includes other truck-types, ambulances and hearses.

REGISTRATIONS OF NEW MOTOR VEHICLES AUSTRALIA, 1962 TO 1966

Year	Motor cars and station wagons	Utilities, panel vans, trucks and omnibuses (*a*)	Motor cycles	Total
1962 . .	266,789	56,457	5,414	328,660
1963 . .	307,380	66,783	5,272	379,435
1964 . .	333,063	75,492	6,482	415,037
1965 . .	331,751	75,190	8,062	415,003
1966 . .	306,479	71,891	9,705	388,075

(*a*) Includes other truck-types, ambulances and hearses.

ROAD TRAFFIC ACCIDENTS

Accidents reported

Accidents involving casualties, persons killed, persons injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED STATES AND TERRITORIES, 1965

State or Territory	Accidents involving casualties	Persons killed			Persons injured		
		Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered	Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered
New South Wales	21,052	1,151	28	9	29,157	699	222
Victoria . .	14,336	929	29	9	20,446	647	195
Queensland .	7,134	467	29	9	10,078	617	187
South Australia(*b*)	7,267	243	23	6	9,491	888	247
Western Australia	4,170	252	31	9	5,638	694	194
Tasmania . .	1,206	93	25	8	1,815	491	148
Northern Territory	232	14	43	10	329	1,002	232
Australian Capital Territory . .	535	15	17	5	769	870	238
Total . .	**55,932**	**3,164**	**28**	**8**	**77,723**	**685**	**207**

(*a*) Accidents (reported to the police) which occurred in public thoroughfares and which resulted in the death of any person within a period of thirty days after the accident, or injury to an extent requiring surgical or medical treatment. (*b*) Includes all accidents resulting in bodily injury to any person whether or not requiring medical or surgical treatment.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED STATES AND TERRITORIES, 1961 TO 1965

Year	N.S.W.	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	N.T.	A.C.T.	Total	
									Number	Per 10,000 motor vehicles registered
Accidents involving casualties—										
1961 . .	16,380	11,719	5,371	5,865	3,528	855	n.a.	296	44,014	148
1962 . .	16,076	12,026	6,310	6,491	3,685	833	n.a.	348	45,769	147
1963 . .	18,101	12,590	6,724	6,299	4,057	1,051	218	425	49,465	149
1964 . .	19,399	13,991	7,220	6,998	4,062	1,184	224	476	53,554	152
1965 . .	21,052	14,336	7,134	7,267	4,170	1,206	232	535	55,932	149
Persons killed—										
1961 . .	918	794	337	178	172	73	n.a.	7	2,479	8
1962 . .	876	808	403	194	177	61	n.a.	8	2,527	8
1963 . .	900	780	398	223	198	75	16	8	2,598	8
1964 . .	1,010	904	461	238	222	89	25	17	2,966	8
1965 . .	1,151	929	467	243	252	93	14	15	3,164	8
Persons injured—										
1961 . .	21,839	16,115	7,467	7,297	4,779	1,173	n.a.	451	59,121	199
1962 . .	21,468	16,781	8,703	8,321	5,077	1,158	n.a.	498	62,006	199
1963 . .	24,652	17,577	9,445	8,271	5,399	1,595	313	628	67,880	205
1964 . .	26,631	19,836	10,383	9,222	5,450	1,709	297	730	74,258	210
1965 . .	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723	207

(*a*) *See* footnote (*a*) to previous table. (*b*) *See* footnote (*b*) to previous table.

Types of road user killed or injured

Responsibility for cause of accident is not indicated by this classification.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): PERSONS KILLED OR INJURED, BY TYPE OF ROAD USER INVOLVED, STATES AND TERRITORIES, 1965

Type of road user	N.S.W.	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	N.T.	A.C.T.	Total
PERSONS KILLED									
Drivers of motor vehicles	411	353	183	89	97	36	10	6	1,185
Motor cyclists	28	14	18	8	12	2	..	1	83
Pedal cyclists	28	49	19	17	13	3	..	..	129
Passengers (all types)(*c*)	378	268	146	70	79	31	3	7	982
Pedestrians	301	236	101	59	51	21	1	1	771
Other classes(*d*)	5	9	..	..	..	..	..	..	14
Total	1,151	929	467	243	252	93	14	15	3,164
PERSONS INJURED									
Drivers of motor vehicles	11,225	7,838	3,950	3,714	2,092	702	149	338	30,008
Motor cyclists	901	392	505	708	371	25	16	36	2,954
Pedal cyclists	924	1,086	545	718	357	55	7	44	3,736
Passengers (all types)(*c*)	11,827	8,404	4,169	3,426	2,064	813	138	282	31,123
Pedestrians	4,254	2,634	900	925	751	219	19	67	9,769
Other classes(*d*)	26	92	9	..	3	1	..	2	133
Total	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723

(*a*) *See* footnote (*a*) to table on page 461. (*b*) *See* footnote (*b*) to table on page 461. (*c*) Includes pillion riders. (*d*) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles.

Age groups of persons killed or injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): PERSONS KILLED OR INJURED, BY AGE GROUP, STATES AND TERRITORIES, 1965

Age group (years)	N.S.W.	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Under 5	38	30	15	10	17	5	..	..	115
5 and under 7	13	13	8	1	5	1	..	..	41
7 ,, ,, 17	80	76	36	25	13	14	..	..	244
17 ,, ,, 21	197	159	87	32	35	9	1	3	523
21 ,, ,, 30	198	142	72	37	41	14	4	7	515
30 ,, ,, 40	126	103	46	34	31	8	4	3	355
40 ,, ,, 50	124	105	59	19	24	10	4	..	345
50 ,, ,, 60	140	100	51	32	32	12	1	1	369
60 and over	229	201	93	40	54	15	..	..	632
Not stated	6	..	..	13	..	5	..	1	25
Total	1,151	929	467	243	252	93	14	15	3,164
PERSONS INJURED									
Under 5	955	775	312	285	248	75	15	31	2,696
5 and under 7	552	406	189	206	119	39	7	28	1,546
7 ,, ,, 17	3,443	2,473	1,301	1,388	751	238	29	122	9,745
17 ,, ,, 21	6,173	4,067	2,340	1,932	1,182	415	33	143	16,285
21 ,, ,, 30	6,061	4,420	2,100	1,476	1,016	346	110	199	15,728
30 ,, ,, 40	3,689	2,563	1,189	990	612	148	73	85	9,349
40 ,, ,, 50	3,190	2,149	1,026	922	486	164	34	94	8,065
50 ,, ,, 60	2,442	1,636	693	657	415	105	20	34	6,002
60 and over	2,277	1,623	709	567	389	96	7	13	5,681
Not stated	375	334	219	1,068	420	189	1	20	2,626
Total	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723

(*a*) *See* footnote (*a*) to table on page 461. (*b*) *See* footnote (*b*) to tables on page 461.

Types of accident

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS AND PERSONS KILLED OR INJURED, BY TYPE OF ACCIDENT, STATES AND TERRITORIES, 1965

Type of accident	N.S.W.	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF ACCIDENTS									
Collisions between vehicles	10,687	7,785	3,181	4,276	2,109	599	67	365	29,069
Vehicle overturning or leaving road	3,556	2,088	2,611	1,069	1,094	320	128	65	10,931
Vehicle colliding with pedestrian	4,259	2,711	963	963	741	227	19	64	9,947
Vehicle colliding with fixed object(*c*)	2,283	1,494	194	875	135	45	5	6	5,037
Passenger accidents	149	120	68	47	57	10	2	2	455
Vehicle colliding with animal	118	58	94	34	18	5	8	..	335
Other	..	80	23	3	16	..	3	33	158
Total	21,052	14,336	7,134	7,267	4,170	1,206	232	535	55,932
PERSONS KILLED									
Collisions between vehicles	458	394	188	109	107	39	2	6	1,303
Vehicle overturning or leaving road	264	193	161	47	84	32	11	2	794
Vehicle colliding with pedestrian	298	232	103	58	50	21	1	1	764
Vehicle colliding with fixed object(*c*)	122	93	8	27	6	1	..	2	259
Passenger accidents	7	10	6	2	4	..	..	..	29
Vehicle colliding with animal	2	3	1	..	..	..	..	..	6
Other	..	4	..	..	1	..	..	4	9
Total	1,151	929	467	243	252	93	14	15	3,164
PERSONS INJURED									
Collisions between vehicles	16,558	12,313	4,954	5,877	3,082	1,000	117	549	44,450
Vehicle overturning or leaving road	4,930	3,199	3,688	1,486	1,512	515	171	98	15,599
Vehicle colliding with pedestrian	4,206	2,634	944	972	744	219	20	64	9,803
Vehicle colliding with fixed object(*c*)	3,148	2,028	257	1,058	195	58	5	5	6,754
Passenger accidents	159	118	71	53	56	15	2	6	480
Vehicle colliding with animal	156	71	137	40	28	8	10	..	450
Other	..	83	27	5	21	..	4	47	187
Total	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723

(*a*) *See* footnote (*a*) to table on page 461. (*b*) *See* footnote (*b*) to table on page 461. (*c*) Includes parked vehicles.

ROADS

Summary of roads used for general traffic

Proclaimed or declared roads. The table following is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1966. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettals of mileages, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS STATES, 30 JUNE 1966

(Miles)

Class of road	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
State highways	6,530	4,465	6,331	8,193	3,465	1,205	60,941
Trunk roads	4,159	9,094	5,176			662	
Ordinary main roads	11,661						
Total main roads	*22,350*	*13,559*	*11,507*	*8,193*	*3,465*	*1,867*	*60,941*
Secondary roads	(a) 144	..	(b) 8,554	..	7,958	196	16,852
Developmental roads	2,889	..	4,377	..	(c) 43,330	..	50,596
Tourist roads	206	445	..	..	..	47	698
Other roads	..	(d) 498	..	..	(e) 74	(f) 136	708
Total other roads	*3,239*	*943*	*12,931*	..	*51,362*	*379*	*68,854*
Grand total	**25,589**	**14,502**	**24,438**	**8,193**	**54,827**	**2,246**	**129,795**

(a) Metropolitan only. (b) Includes mining access roads, farmers' roads and tourist tracks. (c) Maintenance of these roads is the responsibility of the several local authorities. (d) Forest roads and by-pass roads. (e) Gazetted as controlled access roadway but not constructed. (f) Subsidised roads.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

'Total' figures and 'cleared only' figures for South Australia in the table show considerable reductions compared with those for previous years. This is due to the results of a recent investigation of road mileages by the Commissioner of Highways.

ALL ROADS OPEN FOR GENERAL TRAFFIC; LENGTHS STATES AND TERRITORIES, 30 JUNE 1966

(Miles)

Surface of roads	N.S.W.	Vic.	Qld	S.A. r	W.A.	Tas.	N.T.	A.C.T.	Total
Bitumen or concrete	28,575	27,007	15,555	7,940	12,977	2,893	1,527	440	96,914
Gravel, crushed stone or other improved surface	44,594	29,621	19,854	15,950	22,917	8,664	1,118	231	142,949
Formed only	26,911	20,921	42,803	10,538	44,860	1,270	1,735	90	320971
Cleared only	30,963	21,934	43,340	40,553	27,843		7,210	..	
Total	**131,043**	**99,483**	**121,552**	**74,981**	**108,597**	**12,827**	**11,590**	**761**	**560,834**

Further information on roads, including financial particulars, are included in Chapter 21, Local Government.

Australian Road Research Board

The Australian Road Research Board was established by the road authorities of the Commonwealth and State Governments in 1960 as a national centre for road research. The Board was incorporated in January 1965 as a public company by guarantee, memorandums and articles of association being drafted in general conformity with the constitution which had been accepted in 1960. The company members are the Commonwealth of Australia, the commissioners of the central road authorities in New South Wales, Queensland, South Australia, and Western Australia, the Department of Public Works, Tasmania, and the Country Roads Board, Victoria. The Director-General of the Commonwealth Department of Public Works and the departmental heads of the other road authorities constitute the Board, which controls all policy and activities. Finance for all activities has been provided by the company members on an agreed basis.

The objectives of A.R.R.B. include planning an adequate programme of research and development, arranging for individual projects to be carried out directly and by co-operating organisations, and providing conferences and publications to bring these and other advances to everyone interested in roads. The following list of possible subjects indicates the range of studies provided for in the original constitution: road planning, location, design, safety, materials, construction, maintenance, structures, equipment, traffic and transport, economics, administration, financing, management, accounting, and any other matters affecting the provision, upkeep, use, protection, and development of roads. In planning a creative programme the Board continues to look for those subjects which seem to offer the highest profit to road engineers and the community.

The work on research projects is carried out either directly by the Board's own staff, in many cases acting in co-operation with the road authorities of the various Governments, or through co-operative projects established with departments of universities in Adelaide, Brisbane, Melbourne, Perth, and Sydney. The Board has endeavoured to provide or sustain the additional staff required for these external projects, but university staff members furnish willing and generous advice and co-operation in all parts of these studies.

As with most research organisations, the Board has made very full use of systematic consultation through various advisory groups. Members of these groups have been recruited from persons with the ability to contribute, who were prepared to serve as individuals and not as representatives of particular organisations. In an attempt to secure completely unfettered counsel, most of the members of the advisory groups were drawn from outside the Board and its staff. The various committees include a general Advisory Council and several particular types of specialist committees. In addition, the technical committees of the National Association of Australian State Road Authorities have, from the initiation of A.R.R.B., been a continuing and valuable source of advice and consultation. In this way, therefore, exceedingly valuable advice has been obtained from individuals drawn from the State road authorities, local authorities, C.S.I.R.O., Australian universities, several Commonwealth departments, and from private companies and consultants.

CIVIL AVIATION

Department of Civil Aviation

Control of civil aviation in Australia is exercised by the Department of Civil Aviation, which was established in 1939 to take over from the Civil Aviation Board the regulation of civil aviation in Australia. The Department's jurisdiction covers not only Australia but also Papua, New Guinea and areas of the Indian and Pacific Oceans. Year Book Nos. 16, 19 and 38 trace the establishment of civil aviation control in Australia and the appropriate Acts of Parliament and Regulations under which this control is exercised. The present functions of the Department are shown in Year Book No. 51, pages 578–9, and further details about its operations are given in the annual reports to the Commonwealth Parliament by the Minister for Civil Aviation.

International activity

International organisations. A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council, and the South Pacific Air Transport Council appeared in Year Book No. 37, and particulars of subsequent activity in the international field were included in No. 38. The International Civil Aviation Organization had a membership of 111 nations in June 1966. Australia has continued its position as a member of the Council, which it had held since I.C.A.O. was established in 1947. Further details will be found in Year Book No. 40 and earlier issues.

International agreements. Australia had air services agreements with twenty countries by 30 June 1966. They were Britain, Canada, Ceylon, France, Federal Republic of Germany, India, Iran, Ireland, Italy, Japan, Lebanon, Malaysia, Netherlands, New Zealand, Pakistan, Singapore, South Africa, Thailand, United Arab Republic, and the United States of America. Under these agreements, Australia is granted rights to operate services between Australia to and through the countries in question. These rights are exercised by Australia's international airline Qantas. The designated airline of the signatory country is also granted reciprocal rights. Australia also had air services arrangements with thirteen other countries at 30 June 1966. These were Austria, Burma, the Republic of China, Greece, Indonesia, Iraq, Laos, Mexico, the Philippines, Portugal, Saudi Arabia, Turkey, and the Republic of Vietnam. Qantas also operates services to and through most of these countries under these arrangements.

International air services. In November 1966 thirteen overseas international airlines were operating regular scheduled services to Australia. These included: Air-India (India), Air New Zealand (New Zealand), Alitalia (Italy), British Overseas Airways Corporation (United Kingdom), Canadian Pacific Air Lines (Canada), Deutsche Lufthansa (Federal Republic of Germany), Koninklijke Luchtvaart Maatschappij (K.L.M.) (Netherlands), Pan-American World Airways (United States of America), Philippine Air Lines (Philippines), South African Airways (South Africa), and Union de Transports Aeriens (France). The Indonesian airline, P.N. Merparti Nusantara, operates services between Sukarnapura in West Irian and Lae in New Guinea, and Trans-Australia Airlines between Darwin and Portuguese Timor under charter to Transportes Aereos de Timor. By November 1966 Qantas, Australia's international airline, was operating thirteen Boeing 707-138B jet aircraft, six larger Boeing 707-338C jet aircraft, and three Lockheed Electra aircraft. Qantas intends buying another fifteen Boeing 707-338C aircraft for delivery in

1967 through to 1969, and disposing of its thirteen smaller Boeing 707-138B's, giving it a fleet of twenty-one Boeing 707-338C's. All the shares in Qantas Empire Airways are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1965–66 moving into and out of an area which embraces the Commonwealth of Australia, Papua-New Guinea and Norfolk Island. These figures do not include traffic between Australia and Papua-New Guinea and Norfolk Island.

CIVIL AVIATION: INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(*a*), 1965-66

Type of traffic	Aircraft movements	Passengers	Freight	Mail
Traffic to Australia—			short tons	short tons
Qantas Empire Airways .	2,366	136,162	4,482	1,250
Other airlines . . .	2,858	146,022	3,043	1,089
All airlines . . .	*5,224*	*282,184*	*7,525*	*2,339*
Traffic from Australia—				
Qantas Empire Airways .	2,385	126,894	3,062	978
Other airlines . . .	2,852	120,933	2,441	571
All airlines . . .	*5,237*	*247,827*	*5,503*	*1,549*

(*a*) Australian mainland and adjacent Territories (Papua-New Guinea and Norfolk Island).

Particulars of revenue operations of Australian regular overseas services are shown in the following table. These operations include all stages of Qantas Empire Airways flights linking Australia with external territories and overseas countries, and stages external to the Commonwealth for flights of other Australian-owned airlines, they exclude flights over stages located within Papua-New Guinea (*see* footnote (*a*) to table following for years prior to 1965–66).

CIVIL AVIATION: OPERATIONS OF AUSTRALIAN REGULAR OVERSEAS SERVICES 1961-62 TO 1965-66

		1961–62 (*a*)	1962–63 (*a*)	1963–64 (*a*)	1964–65 (*a*)	1965–66
Hours flown . .	number	51,066	48,669	53,792	68,028	68,405
Miles flown . .	. '000	19,240	20,343	22,357	28,126	29,635
Passengers—						
Embarkations .	number	247,517	294,908	352,442	443,665	448,623
Passenger-miles .	. '000	836,570	1,014,867	1,185,981	1,527,039	1,569,513
Freight—						
Tons uplifted .	. short tons	6,432	6,756	8,071	10,293	11,451
Ton-miles(*b*) . .	. '000	30,429	33,135	38,633	51,826	61,836
Mail—						
Tons uplifted .	. short tons	2,015	2,468	2,654	3,124	3,252
Ton-miles(*b*) . .	. '000	11,622	15,191	16,057	19,891	20,914

(*a*) Includes, for flights between Papua-New Guinea, operations over stages located within the Commonwealth and within Papua-New Guinea. (*b*) In terms of short tons.

Regular air services within Australia

Interstate services. Scheduled interstate services with passenger and all-freight aircraft are provided by two airlines only, the private enterprise airline Ansett-A.N.A. (a subsidiary of Ansett Transport Industries) and the Commonwealth-owned Trans-Australia Airlines. All principal routes are competitive, with both airlines providing equal capacities in accord with legislation passed by the Commonwealth Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreement Act* 1952–1961 and the *Airlines Equipment Act* 1958. The Airlines Equipment Act established the machinery for the achievement and maintenance of comparable, but not necessarily identical, aircraft fleets between T.A.A. and Ansett-A.N.A., and is designed to prevent the provision of excess aircraft capacity. The Airlines Agreement Act established the basis of control of the two-airline competitive system and extended this machinery to 1977.

In addition to purely interstate services, both Ansett-A.N.A. and Trans-Australia Airlines operate routes to New Guinea and non-competitive intra-state routes in Australia. The Ansett-A.N.A. non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located mainly within Queensland and Tasmania. In addition, Trans-Australia Airlines operate services within Papua-New Guinea in competition with another Ansett subsidiary, Ansett-M.A.L., and the independent Papuan Airlines.

At 30 October 1966 the Ansett-A.N.A. fleet included four Boeing 727's, three Electras, eight Viscounts, four DC6B's, five Friendships, two Carvairs, a number of DC4's and DC3's, eight helicopters, and smaller aircraft. At the same date Trans-Australia Airlines operated a fleet of four Boeing 727's, three Electras, fourteen Viscounts, nine Friendships, a number of DC4's and DC3's, three helicopters, and smaller aircraft.

Intra-state services. In addition to the intra-state services operated by Ansett-A.N.A. and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Airlines of New South Wales and East-West Airlines), Brisbane (Queensland Airlines), Adelaide (Airlines of South Australia), Perth (MacRobertson Miller Airlines), and Alice Springs (Connellan Airways). With the exception of Connellan Airways, which provides regular service to outback homesteads and communities, all the remainder are concerned primarily with traffic moving to and from the respective capital city. With the exception of the independently owned East-West Airlines and Connellan Airways, all regional airlines are subsidiaries of Ansett Transport Industries. The largest aircraft used by these regional airlines are DC4's, Convair Metropolitans, and Friendships, supported by DC3's. Connellan Airways uses smaller aircraft types.

Internal operations. Particulars of the revenue operations of all regular internal air services during each of the years 1961–62 to 1965–66 are set out in the next table. A graph showing paying passengers and freight carried appears on plate 33 over the page.

CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62 (*b*)	1962–63 (*b*)	1963–64 (*b*)	1964–65 (*b*)	1965–66
Hours flown . .	number	207,210	217,897	244,517	256,231	261,535
Miles flown . .	. '000	41,176	43,700	48,971	52,323	55,020
Passengers—						
Embarkations .	number	2,666,160	2,832,934	3,256,937	3,763,936	4,157,873
Passenger-miles .	. '000	1,119,430	1,221,178	1,408,317	1,639,087	1,831,360
Freight—						
Tons uplifted . .	short tons	57,207	59,373	63,161	69,959	76,079
Ton-miles(*c*) . .	. '000	26,076	28,270	30,491	33,891	37,577
Mail—						
Tons uplifted . .	short tons	6,311	6,467	7,082	7,736	8,633
Ton-miles(*c*) . .	. '000	3,198	3,324	3,741	4,074	4,587

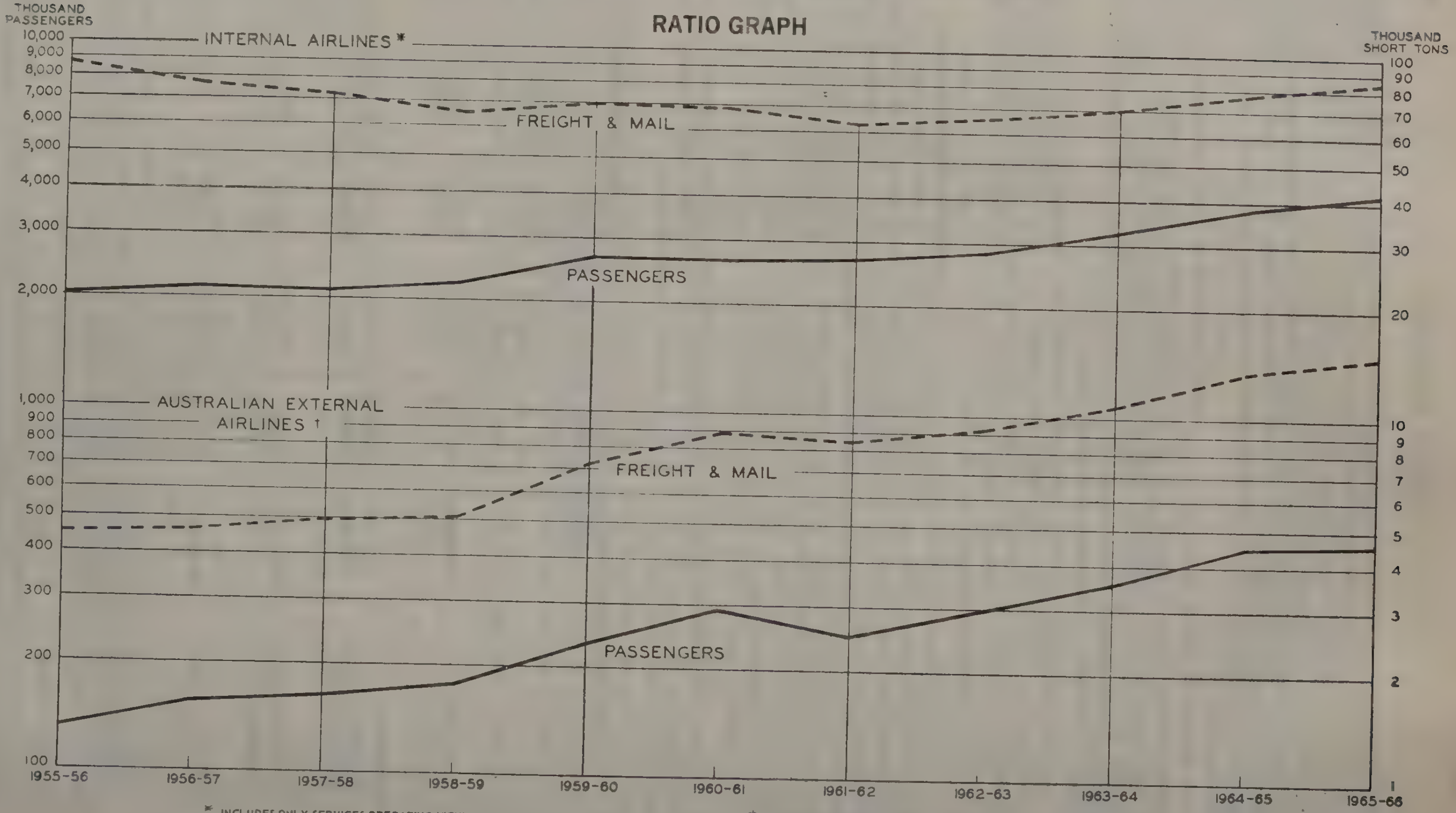
(*a*) Includes flights of all Australian-owned airlines with the exception of those of Qantas Empire Airways between airports located within the Commonwealth. (*b*) Excludes, for flights between Papua-New Guinea, operations between airports located within the Commonwealth. (*c*) In terms of short tons.

General aviation

General aviation activity, which covers all non-airline operations such as charter, aerial work and private flying, has grown rapidly throughout Australia in the post-war period so that now it is an important sector of the Australian aviation industry. In 1965, hours flown totalled 714,058 compared with 354,000 hours flown by Australian airline aircraft. At 30 June 1966, aircraft employed in general aviation numbered 2,382.

CIVIL AVIATION: AUSTRALIA, 1955-56 TO 1965-66

PAYING PASSENGERS AND FREIGHT CARRIED



* INCLUDES ONLY SERVICES OPERATING WITHIN THE AUSTRALIAN MAINLAND AND TASMANIA. † AIRLINES WHOLLY OR PARTLY OWNED BY AUSTRALIAN INTERESTS.

NOTE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE ACTUAL NUMBERS ARE INDICATED BY THE SCALES

PLATE 33

Government aid to flying training

The Commonwealth Government has subsidised flying training in Australia since 1926. The aid is distributed through the aero clubs and, in more recent years, the commercial flying training schools. In 1966 the Government reviewed the level of its assistance to the Australian flying training movement and decided to:

continue the highly successful Australian Flying Scholarship Scheme for another five years with a subsidy of $100,000 a year;

propose a partnership with commercial airlines in subsidising additional scholarships on a dollar for dollar basis up to $75,000 a year;

grant another $150,000 in subsidies to the aero clubs and commercial flying schools;

establish a special 'revolving fund' to help country aero clubs to buy new training aircraft;

make secretariat grants of $18,000 and $3,000 respectively to the Aero Club Federation and the Association of Commercial Flying Organisations; and

make an annual grant of $15,000 to the Gliding Federation for each of the next five years.

The Australian Flying Scholarship Scheme is designed to help young Australians train as career pilots for Australia's rapidly expanding commercial aviation industry. The scholarships provide financial aid in much the same way as Commonwealth scholarships provide for students undertaking other professions. They enable scholarship winners to train as commercial pilots, instructors and agricultural pilots. Since the scheme started in 1962, 846 scholarships have been awarded.

During 1965–66 pupils of the Australian flying training organisations (aero clubs and commercial flying schools) received 439 private licences, 261 commercial licences and 82 instructor ratings. Subsidised hours flown by aero clubs and flying schools totalled 173,114 hours out of a total of 230,496 hours flown, and their subsidy earnings totalled $270,923. A limit placed on the subsidy restricted the total payment to $150,000. During the year clubs were also assisted with the purchase of twenty-two aircraft. The value of this assistance under the Aircraft Replacement Fund was $20,000. The permanent secretariats of the Royal Federation of Aero Clubs and the Commercial Flying Schools also received $16,000 and $2,000 respectively during 1965–66 as additional financial assistance.

Forty-five clubs were affiliated with the Gliding Federation of Australia in 1965–66 and there were more than 1,600 members. During 1965–66 the Commonwealth assisted gliding clubs to the extent of $12,000. The total of all subsidy payments and financial assistance to flying training organisations and the gliding movement during 1965–66 was $350,000.

Aerodromes

The number of aerodromes throughout Australia and its Territories at 30 June 1966 was 646. One hundred and twenty-five were owned by the Commonwealth Government and 521 by local authorities and private interests. Capital expenditure on aerodrome construction increased from $9.10 million in 1964–65 to $14.7 million in 1965–66 and is expected to reach an estimated $22 million during 1966–67. Maintenance expenditure on Commonwealth-owned aerodromes during 1965–66 was $6.5 million, and development grants to licensed aerodromes participating in the Local Ownership Plan totalled $0.9 million. The two major projects at Melbourne and Sydney included in the current five-year airports programme, which ends in 1967–68, are proceeding satisfactorily. The work at Sydney, which involves a major runway extension and a new international terminal, is estimated to cost $43 million. The new Melbourne airport is to cost $40 million. The projects as a whole are expected to be completed in 1969, but progressive use will be made of the facilities as they become available. Total estimated cost of the Commonwealth's current airport expansion programme is $120 million.

Airways facilities

Concurrently with the five-year aerodrome development programme, the Commonwealth Government has approved major extensions and improvements to Australia's air navigation and communications system. New long-range radar units have been installed at Sydney, Melbourne, Brisbane, and Adelaide to assist air traffic control, and other units are being established at Perth, Canberra and in northern New South Wales. Total cost of this radar programme is approximately $8 million.

Further progress has been made with the programme, started in 1961, of increasing the number of laterally spaced air routes in heavy traffic areas throughout Australia and improving the network of radio navigational aids defining them. A further thirteen navigational aids were put into operation during 1965–66. The number of navigational aids operating throughout the Commonwealth at 30 June 1966 totalled 297. These included 86 distance measuring equipment (DME) beacons, 32 visual aural ranges (VAR), 156 non-directional beacons (NDB), 10 VHF omni radio ranges (VOR), and 13 instrument landing systems (ILS).

Aircraft on the Australian register

CIVIL AVIATION: AIRCRAFT ON AUSTRALIAN REGISTER 30 JUNE 1966

Type of aircraft	Number of engines				Total aircraft
	One	Two	Three	Four	
Fixed-wing powered aircraft—					
Turbo-jet	..	3	6	19	28
Turbo-prop	2	31	..	32	65
Piston-engined 20,000 lb and over all-up weight	..	83	..	22	105
Piston-engined under 20,000 lb all-up weight	2,131	206	8	3	2,348
Helicopters	58	1	..	..	59
Total powered aircraft	*2,191*	*324*	*14*	*76*	*2,605*
Gliders	..	..	..	..	187

Particulars of powered aircraft according to manufacturer and air navigation class in which registered, and further details of gliders, may be found in the bulletin *Transport and Communication*, No. 57, 1965–66.

Civil aviation registrations, licences, etc., in force in Australia

CIVIL AVIATION: REGISTRATIONS, LICENCES, ETC., AUSTRALIA(*a*) 1962 TO 1966

	30 June—				
	1962	1963	1964	1965	1966
Registered aircraft owners	938	1,006	1,167	1,293	1,481
Registered aircraft(*b*)	1,600	1,787	1,936	2,207	2,605
Pilots' licences—					
Private	3,627	4,066	4,720	5,382	6,365
Private helicopter	2	3	6	6	7
Commercial	1,090	1,159	1,263	1,411	1,616
Senior commercial	154	176	189	192	192
Commercial helicopter	33	42	53	59	83
Senior commercial helicopter	..	..	..	5	6
Student	4,433	4,845	5,676	6,907	8,109
Student helicopter	12	15	41	66	96
1st class airline transport	690	684	670	750	807
2nd class airline transport	432	464	603	725	822
Flight navigators' licences	141	135	137	154	252
1st class flight radio-telegraph operators' licences	37	20	19	18	19
Flight radio-telephone operators' licences	5,370	6,552	7,956	9,102	10,831
Flight engineers' licences	175	168	215	429	495
Aircraft maintenance engineers' licences	2,485	2,521	2,553	2,779	2,879
Aerodromes, Australia—					
Government(*c*)	129	122	113	110	110
Licensed(*d*)	359	380	381	386	385
Flying-boat bases(*e*)	13	13	13	13	13

(*a*) Except for aerodromes and flying-boat bases, includes the Territory of Papua-New Guinea. (*b*) Excludes gliders. At 30 June 1966 there were 187 gliders registered. (*c*) Under the control and management of the Department of Civil Aviation. (*d*) Under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (*e*) Includes alighting areas.

Accidents and casualties

Particulars of accidents in which persons were killed or injured, involving aircraft on the Australian register, are shown in the following table for the years 1961–62 to 1965–66.

CIVIL AVIATION: AUSTRALIAN AIRCRAFT(*a*), ACCIDENTS INVOLVING CASUALTIES(*b*), 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
Number	46	32	33	r 21	41
Persons killed . . .	52	16	24	21	32
Persons seriously injured .	38	26	26	7	28

(*a*) Aircraft on Australian register and gliders irrespective of location of accident.
(*b*) Includes parachutists killed.

POSTS: INTERNAL AND OVERSEAS TELECOMMUNICATION SERVICES RADIOCOMMUNICATION STATIONS

In this division particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated. The Central Office of the Postmaster-General's Department is located in Melbourne, Victoria.

Postmaster-General's Department—General

Under the provisions of the *Post and Telegraph Act* 1901–1966 the Postmaster-General's Department is responsible for the control and operation of postal, telegraphic and telephonic services throughout Australia. The Postmaster-General's Department is also responsible for the provision and operation of the transmitters and technical facilities required for broadcasting and television services by the Australian Broadcasting Commission (*see* pages 481–4), and, in conjunction with the Overseas Telecommunications Commission (*see* pages 479–81), with whom there is close co-operation, provides facilities for communication with overseas countries. Subsidiary to its major activities, the Postmaster-General's Department performs a number of important functions for other Commonwealth and State departments, including the payment of pensions, child endowment and military allotments, the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, and the collection of land tax.

Postal facilities

The following table shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square miles in each State and in Australia at 30 June 1966.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES 30 JUNE 1966

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices—							
Official	521	329	233	173	151	54	1,461
Non-official	1,883	1,765	966	751	484	433	6,282
Total	**2,404**	**2,094**	**1,199**	**924**	**635**	**487**	**7,743**
Square miles of territory per office	129	42	556	974	1,537	54	383
Inhabitants per office . .	1,800	1,537	1,386	1,221	1,316	762	1,490
Inhabitants per 100 square miles .	1,394	3,661	249	125	86	1,407	389

Employees

The number of employees and mail contractors in the Central Office and in each of the States at 30 June 1966 is given in the following table.

POSTAL EMPLOYEES: CENTRAL OFFICE AND STATES, 30 JUNE 1966

Employees	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Full-time(*a*)—								
Permanent officers	1,594	23,471	16,160	10,094	7,026	5,065	2,601	66,011
Temporary and exempt officers	247	11,475	9,555	2,769	2,347	1,428	847	28,668
Total, full-time	*1,841*	*34,946*	*25,715*	*12,863*	*9,373*	*6,493*	*3,448*	*94,679*
Other(*b*)—								
Non-official and semi-official postmasters	..	1,884	1,749	958	751	485	431	6,258
Persons exclusive of postmasters at non-official offices	..	441	638	258	194	57	36	1,624
Telephone office-keepers	..	271	111	407	104	242	17	1,152
Mail contractors (including persons employed to drive vehicles)	..	2,054	942	1,164	339	292	204	4,995
Total, other	..	*4,650*	*3,440*	*2,787*	*1,388*	*1,076*	*688*	*14,029*

(*a*) Persons directly under the control of the Department. Excludes 3,020 part-time staff. (*b*) Persons not directly under the control of the Department. Includes persons employed, either full-time or part-time, under contract or in return for payments appropriate to work performed.

Cash revenue, branches—Postmaster-General's Department

The cash revenue (actual collections during each year as recorded for Treasury purposes) in respect of each branch of the Department is shown in the following tables. The earnings of the Department, which include revenue earned but not actually received, are shown in the profit and loss statement on page 474.

POSTMASTER-GENERAL'S DEPARTMENT: CASH REVENUE, BY SOURCE CENTRAL OFFICE AND STATES, 1965-66

($'000)

Source	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Postal	7,485	44,619	31,146	13,589	9,670	6,993	2,685	116,187
Telephone	1,424	104,040	75,800	34,054	24,757	17,276	7,209	264,560
Telegraph	2,158	6,433	4,292	3,086	2,398	1,591	471	20,429
Miscellaneous	..	34	123	41	89	26	9	320
Total	**11,067**	**155,125**	**111,361**	**50,769**	**36,914**	**25,886**	**10,374**	**401,496**

POSTMASTER-GENERAL'S DEPARTMENT: CASH REVENUE BY SOURCE, AUSTRALIA, 1961-62 TO 1965-66

($'000)

Source	1961–62	1962–63	1963–64	1964–65	1965–66
Postal	94,208	98,854	105,954	112,182	116,187
Telephone	170,332	184,630	205,564	240,641	264,560
Telegraph	14,896	15,838	17,254	19,352	20,429
Miscellaneous	192	350	506	473	320
Total	**279,628**	**299,672**	**329,278**	**372,648**	**401,496**

Cash expenditure, Postmaster-General's Department

The following tables show, as far as possible, the distribution of cash expenditure (actual payments during each year as recorded for Treasury purposes) in each State and Central Office. The tables must not be regarded as statements of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

POSTMASTER-GENERAL'S DEPARTMENT: CASH EXPENDITURE CENTRAL OFFICE AND STATES, 1965–66

($'000)

	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Expenditure from ordinary services votes—								
Salaries and payments in the nature of salary	2,156	47,791	34,720	18,428	12,124	8,179	4,181	127,579
Administrative	1,231	6,669	5,543	2,078	1,740	1,147	578	18,986
Stores and material	174	1,601	1,341	631	407	317	158	4,629
Mail services	17,504	4,387	2,535	2,088	1,018	603	271	28,407
Engineering services (other than new works)	3,382	33,018	24,857	11,933	9,155	7,046	3,303	92,693
Other services(*a*)	328	..	..	..	..	..	..	328
Total, ordinary services votes	*24,775*	*93,467*	*68,996*	*35,158*	*24,444*	*17,292*	*8,491*	*272,623*
Rent, repairs, maintenance	56	1,716	2,166	778	555	372	131	5,775
Other(*b*)	..	279	194	111	48	48	16	697
Capital works and services—								
Plant and equipment(*c*)	2,095	64,906	43,895	18,931	15,770	12,053	7,032	164,682
New buildings, etc.(*d*)	..	5,178	3,760	2,700	1,089	1,147	597	14,471
Grand total	**26,926**	**165,546**	**119,011**	**57,678**	**41,906**	**30,912**	**16,267**	**458,248**

(*a*) Excludes contributions towards the cost of coastal wireless stations. (*b*) Expenditure on furnishings and fittings. Previously included in capital works. (*c*) Includes expenditure on motor vehicles, postal plant and certain non-engineering plant previously included in ordinary services votes. (*d*) Expenditure on furniture and fittings, previously included with building expenditure, is now included with ordinary services votes.

POSTMASTER-GENERAL'S DEPARTMENT: CASH EXPENDITURE AUSTRALIA, 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Expenditure from ordinary services votes—					
Salaries and payments in the nature of salary	100,860	102,256	107,964	118,490	127,579
Administrative	12,230	12,302	14,588	16,380	18,986
Stores and material	4,746	3,594	3,308	3,455	4,629
Mail services	21,770	23,036	24,152	25,226	28,407
Engineering services (other than new works)	(*a*) 86,370	68,812	77,350	85,553	92,693
Other services(*b*)	250	280	280	319	328
Total, ordinary services votes	*226,226*	*210,280*	*227,642*	*249,423*	*272,623*
Rent, repairs, maintenance	3,318	3,526	4,206	4,900	5,775
Other	..	..	..	..	(*c*) 697
Capital works and services—					
Plant and equipment	81,022	(*d*)111,594	(*d*)122,406	(*d*)144,802	(*d*)164,682
New buildings, etc.	10,856	11,886	14,716	15,086	(*e*) 14,471
Grand total	**321,422**	**337,286**	**368,970**	**414,211**	**458,248**

(*a*) Includes expenditure on motor vehicles, postal plant and certain non-engineering plant. After 1961–62 this expenditure is included in capital works expenditure. (*b*) Excludes contributions towards the cost of coastal wireless stations. (*c*) Expenditure on furniture and fittings. Previously included in capital works. (*d*) Includes expenditure on motor vehicles, postal plant and certain non-engineering plant previously included in ordinary services votes. (*e*) Expenditure on furniture and fittings, previously included with building expenditure, is now included with ordinary services votes.

Profit or loss, Postmaster-General's Department

The foregoing tables of cash revenue and expenditure represent actual collections and payments made, and cannot be taken to represent the actual results of the working of the Department for the year. The net results after providing for working expenses (including superannuation, pensions and depreciation) and interest charges (including exchange) are shown in the following table for the year 1965–66 together with summarised particulars for the year 1964–65.

POSTMASTER-GENERAL'S DEPARTMENT: CONSOLIDATED STATEMENT OF PROFIT AND LOSS, 1964–65 AND 1965–66

($'000)

	1965–66			1964–65
	Postal service	Telecommunications service	All services	All services
Earnings	*116,746*	*284,528*	*401,274*	*370,045*
Working expenses—				
Operating and general cost	83,736	74,451	158,187	144,707
Maintenance of plant and equipment	1,132	66,489	67,621	61,187
Carriage of mails	31,143	..	31,143	28,710
Depreciation	2,483	66,521	69,004	61,738
Superannuation and furlough liability	5,785	9,341	15,126	16,584
Total working expenses	*124,279*	*216,803*	*341,082*	*312,926*
Profit or loss before interest	−7,533	67,725	60,192	57,119
Interest	2,809	57,507	60,316	52,907
Profit or loss after interest	**−10,341**	**10,217**	**−124**	**4,212**

Minus sign (−) denotes loss.

Fixed assets, Postmaster-General's Department

POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS, 1965–66

($'000)

Class of plant	Value at 1 July 1965	Adjustments to values	Additions during year	Instalments of plant written out	Value at 30 June 1966
Telecommunications plant	1,387,259	−5,428	174,231	11,898	[a]1,544,163
Postal plant	9,854	..	2,336	56	12,134
Engineers' moveable plant	32,489	..	3,433	1,483	34,438
Motor vehicles	24,136	−633	6,169	4,331	25,342
Other plant and equipment	29,142	..	4,903	748	33,296
Buildings	159,585	..	15,910	..	(b)175,495
Land	18,975	..	468	..	19,443
Total	**1,661,440**	**−6,062**	**207,449**	**18,517**	**1,844,311**

(a) Includes plant under construction valued at $78,272,000. (b) Includes buildings under construction valued at $4,913,000.

Minus sign (−) denotes reduction in values of assets.

Postal services

Mail delivery points

MAIL DELIVERY POINTS: STATES, 30 JUNE 1966

State	Postmen's delivery	Roadside delivery	Private boxes	Private mail bag services
New South Wales	1,236,299	50,564	66,858	6,491
Victoria	812,326	31,655	41,335	6,427
Queensland	406,208	27,989	33,530	4,769
South Australia	321,303	1,031	24,526	2,907
Western Australia	194,647	17,766	18,483	742
Tasmania	74,665	1,297	7,441	1,707
Australia	**3,045,448**	**130,302**	**192,173**	**23,043**

Postal articles handled

The following two tables show the number of postal articles handled by the Australian Post Office. Mail matter posted in Australia for delivery therein is necessarily handled at least twice, but only the number of distinct articles handled is included in the following tables.

POSTAL ARTICLES HANDLED(*a*): STATES, 1965-66

('000)

State	Letters (*b*)	News-papers and packets (*c*)	Parcels (*d*)	Regis-tered articles (*e*)	Letters (*b*)	News-papers and packets (*c*)	Parcels (*d*)	Regis-tered articles (*e*)
	Posted for delivery within Australia				Posted for delivery overseas			
New South Wales	697,755	152,328	6,287	3,782	49,651	11,822	304	898
Victoria	577,379	99,611	4,943	2,414	28,603	4,700	221	536
Queensland	248,283	31,895	2,434	1,437	10,836	1,332	36	47
South Australia	177,760	17,067	1,337	782	7,979	1,507	51	62
Western Australia	143,192	13,540	1,045	659	6,437	869	31	53
Tasmania	49,358	8,013	263	368	614	105	12	3
Australia	**1,893,727**	**322,455**	**16,309**	**9,443**	**104,120**	**20,336**	**655**	**1,599**
	Received from overseas				Total postal matter dealt with			
New South Wales	57,534	28,329	646	1,200	804,940	192,479	7,236	5,880
Victoria	47,790	11,402	404	525	653,773	115,714	5,568	3,476
Queensland	8,136	4,846	120	35	267,255	38,074	2,590	1,518
South Australia	6,332	5,321	100	31	192,071	23,895	1,489	875
Western Australia	3,961	6,698	79	49	153,590	21,108	1,156	761
Tasmania	1,738	2,191	13	4	51,710	10,309	288	376
Australia	**125,491**	**58,788**	**1,362**	**1,843**	**2,123,338**	**401,578**	**18,327**	**12,886**

(*a*) Number of distinct articles handled. (*b*) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (*c*) Includes newspapers and postal articles not included in letter mail. (*d*) Includes registered, cash on delivery and duty parcels. (*e*) Includes registered articles other than parcels.

POSTAL ARTICLES HANDLED(*a*): AUSTRALIA, 1961-62 TO 1965-66

('000)

Year	Letters(*b*)	Newspapers and packets(*c*)	Parcels(*d*)	Registered articles(*e*)	Total postal articles handled
1961–62 . .	1,748,054	324,694	15,854	12,357	2,100,959
1962–63 . .	1,835,869	337,644	16,545	12,339	2,202,397
1963–64 . .	1,952,029	360,510	17,010	12,315	2,341,864
1964–65 . .	2,032,287	380,178	18,156	12,190	2,442,811
1965–66 . .	2,123,338	401,578	18,327	12,886	2,556,128

For footnotes *see* previous table.

During 1965–66 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows: road, $9,479,251, railway, $3,569,734; sea, $635,623; air—internal, $3,567,049, overseas, $13,891,585; grand total, $31,143,242.

Money orders and postal orders

The issue of money orders and postal orders is regulated by sections 74–79 of the *Post and Telegraph Act* 1901–1966. The maximum amount for which a single money order payable within Australia may be obtained is $80, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent by any one person to a person or persons outside Australia is $20 a week. A postal order is not available for a sum larger than four dollars. The following table shows the number and value of money orders and postal orders issued in Australia in each of the years 1961–62 to 1965–66 and the income therefrom which has accrued to the Post Office.

MONEY ORDERS AND POSTAL ORDERS(*a*): TRANSACTIONS, AUSTRALIA 1961-62 TO 1965-66

Year	Money orders(*b*)			Postal orders(*a*)		
	Issued(*c*)		Total commission received	Issued		Fee
	Number	Value		Number	Value	
	'000	$'000	$'000	'000	$'000	$'000
1961–62 . .	10,176	264,992	1,752	15,514	16,192	614
1962–63 . .	11,076	306,866	1,858	16,330	17,240	642
1963–64 . .	11,838	338,674	2,004	15,987	17,234	634
1964–65 . .	12,176	376,356	2,103	15,338	16,737	618
1965–66 . .	12,634	407,275	2,200	15,010	16,184	604

(*a*) Postal orders replaced postal notes on 1 June 1966. (*b*) Money orders issued for payment in Australia and Papua and New Guinea. (*c*) Includes official money orders used in bringing to account telephone accounts and collections on War Service Homes repayments.

Of the total money orders issued in Australia during 1965–66, 12,185,004 valued at $404,341,291 were payable in Australia, and 449,245 valued at $2,934,070 were payable overseas. Of the total money orders paid in Australia during 1965–66, 12,097,599 ($404,124,469) were issued in Australia, and 192,528 ($2,968,286) were issued overseas.

Of the total postal orders paid in Australia during 1965–66 (14,958,584 valued at $16,481,630), 10,175,422 ($11,678,204) were paid in the State in which issued, and 4,793,162 ($4,803,426) were paid in States other than those in which issued.

Internal telecommunication services

A review of the development of telegraph services in Australia up to 1921 appeared in Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. Internal telecommunication operations now comprise telephone, telegraph, and telegraph exchange (telex) services.

Wire and pole mileages

At 30 June 1966 there were 15,288,000 single wire miles of cable and 1,285,000 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires were mounted on 119,183 miles of pole routes, and joint use is made of these poles for both power and telecommunication reticulation.

Telephone services in operation

The following table shows the number of services in operation in each State at 30 June 1966 classified according to type of service, type of exchange to which connected, and location. Telephone services connected to exchanges located within fifteen miles of the Sydney and Melbourne and ten miles of the Brisbane, Adelaide, Perth, and Hobart General Post Offices are defined as being within a metropolitan area.

TELEPHONE SERVICES IN OPERATION: STATES, 30 JUNE 1966

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Type of service—							
Ordinary exchange services	684,682	588,212	234,765	169,381	112,461	55,933	1,845,437
Duplex services	23,672	4,998	124	1,132	252	584	30,762
Party line services	4,992	2,732	2,912	1,459	1,372	304	13,771
Private branch exchange services	89,407	57,740	20,692	18,331	11,939	4,035	202,144
Public telephones	10,919	7,292	4,317	2,619	1,996	1,121	28,264
Connected to—							
Automatic exchanges	691,994	577,236	199,817	161,122	103,886	50,245	1,784,300
Manual exchanges	121,678	83,738	62,993	31,800	24,137	11,732	336,078
Located in—							
Metropolitan areas	515,232	438,735	127,468	125,349	86,787	22,885	1,316,456
Country areas	298,440	222,239	135,342	67,573	41,236	39,092	803,922
Total	**813,672**	**660,974**	**262,810**	**192,922**	**128,023**	**61,977**	**2,120,378**

TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1962 TO 1966

Services connected to—	30 June—				
	1962	1963	1964	1965	1966
Metropolitan exchanges—					
Automatic	1,065,326	1,123,391	1,188,264	1,244,926	1,316,456
Manual	551	..	..	..	..
Country exchanges—					
Automatic	288,021	322,187	361,368	414,636	467,844
Manual	364,671	366,603	369,248	350,562	336,078
All exchanges—					
Automatic	1,353,347	1,445,578	1,549,632	1,659,562	1,784,300
Manual	365,222	366,603	369,248	350,562	336,078
Total services	**1,718,569**	**1,812,181**	**1,918,880**	**2,010,124**	**2,120,378**

Telephone instruments connected

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1962 TO 1966
('000)

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1962 . . .	949	729	289	211	134	71	2,383
1963 . . .	999	773	306	225	145	75	2,523
1964 . . .	1,053	819	324	241	155	78	2,670
1965 . . .	1,107	861	341	256	164	82	2,811
1966 . . .	1,182	905	357	272	176	86	2,978
Number at 30 June 1966 per 100 population .	27.3	28.1	21.5	24.1	21.1	23.2	25.8

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA, 1961-62 TO 1965-66

Year	Effective paid local calls		Trunk line calls		Total calls
	Total	Per service	Total	Per service	
	'000	number	'000	number	'000
1961–62 . . .	1,650,000	960	76,500	45	1,726,500
1962–63 . . .	1,809,000	998	84,500	47	1,893,500
1963–64 . . .	1,958,000	1,020	95,700	50	2,053,700
1964–65 . . .	2,043,000	1,016	106,500	53	2,149,500
1965–66 . . .	2,103,000	992	116,600	55	2,219,600

Subscriber trunk dialling (S.T.D.) facilities were introduced during the year 1961–62 from Canberra to the Sydney network and from Warragul (Victoria) to Melbourne. At the end of June 1966 subscriber trunk dialling was in operation at 119 exchanges, serving approximately 285,862 subscribers.

Internal telegraphs

Telegrams can be lodged at any post office, telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be despatched from any subscriber's telephone or telegraph exchange (telex) equipment. The number of telegrams of various types transmitted within the Commonwealth during the years 1961–62 to 1965–66 is set out hereunder.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1961-62 TO 1965-66
('000)

Year	Ordinary (*a*)	Urgent	Press	Letter-grams	Meteorological service	Service	Total telegrams
1961–62 . .	16,429	558	147	89	914	602	18,739
1962–63 . .	16,663	492	148	91	948	582	18,924
1963–64 . .	17,783	545	130	86	920	621	20,085
1964–65 . .	18,302	532	96	65	912	643	20,550
1965–66 . .	18,605	550	100	59	1,005	717	21,036

(*a*) Includes radiograms.

Teleprinter exchange service (telex)

Particulars of the operations of the teleprinter exchange network, which are additional to the telegraph traffic shown above, are given hereunder.

TELEPRINTER EXCHANGE NETWORK (TELEX)
AUSTRALIA, 1961-62 TO 1965-66

Year	Subscribers at end of year	Local calls	Trunk calls
1961–62 . .	1,215	36,210	696,482
1962–63 . .	1,439	68,769	931,783
1963–64 . .	1,815	101,315	1,311,023
1964–65 . .	2,179	143,631	1,634,359
1965–66 . .	2,444	176,243	1,875,237

Overseas telecommunication services

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance, operation and development of Australia's overseas public telegraph, phototelegraph and telex services by cable and by radio, and the provision, maintenance, and development of cable and radio facilities for the conduct of Australia's overseas telephone services and of the facilities for services with ships at sea.

The Commission was established under the *Overseas Telecommunications Act* 1946–1966. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunication services of the British Commonwealth countries concerned and for the establishment of a representative advisory board, the Commonwealth Telecommunications Board, to co-ordinate their development.

The Commission provides telegraph, telex, phototelegraph, and, in conjunction with the Postmaster-General's Department, telephone services with overseas countries and Australian Territories. Leased one- and two-way circuits are also provided for large commercial users. In addition, it operates the Australian coastal radio services for communication with ships at sea in Australian waters and high frequency radio services for communication with ships in any part of the world. The Commission's coastal radio stations also provide certain services to a number of remote stations within Australia and its Territories.

Details of overseas communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Year Book No. 37, pages 220–4.

To meet Australia's increasing demand for overseas communication channels, and because of limitations to performance and capacity inherent in current forms of telegraph cables and high frequency radio systems, the Commission, in partnership with the overseas telecommunications authorities of Britain, Canada and New Zealand, installed a large capacity telephone cable across the Pacific Ocean, connecting Australia, New Zealand and Canada via Suva and Honolulu. Work was commenced in August 1960, and the cable (COMPAC) was opened in December 1963. This cable forms part of a British Commonwealth large capacity cable scheme, in which a complementary cable between Britain and Canada (CANTAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii and into the European network at London.

The next stage of the system, the south-east Asia cable project (SEACOM), will extend the large capacity telephone cable from Sydney to Singapore and Kuala Lumpur via Cairns, Madang, Guam, Hong Kong, and Jesselton. The Singapore-Jesselton section was opened for service on 15 January 1965 and the Jesselton-Hong Kong section on 31 March 1965. The whole project is scheduled for opening early in March 1967.

Separate management committees, comprising representatives of the overseas telecommunication authorities and the partner Governments, Britain, Canada, Australia, and New Zealand, with the addition, for SEACOM, of Malaysia and Singapore, administered COMPAC and SEACOM projects up to November 1965, when these committees were amalgamated into the Commonwealth Cable Management Committee.

Two years of international discussion and negotiations were climaxed by the signing in August 1964 by a number of countries, including Australia, of agreements to establish the first global commercial communications satellite system, of which the 'space segment' is estimated to cost $US 200 million. 'Space segment' is a broad description of the communications satellites and the tracking, control, command, and related facilities required to support operation of the satellites. An earth station, owned and operated by the Commission, has been built at Carnarvon, Western Australia, at a cost of almost $3 million to operate into communications satellite INTELSAT II launched in January 1967 and positioned in geo-stationary orbit 22,300 miles above the equator at longtitude 175°E. A contract for the erection of a second earth station to be completed by December 1967 has been let. This station which also will work into INTELSAT II is being established in Moree, New South Wales, with necessary staff residences, at a cost estimated at $4 million.

International telecommunication traffic

Particulars of the volume of international telegram business, originating and terminating in Australia, transacted over the cable and radio services during 1965-66 are shown in the following table.

INTERNATIONAL TELEGRAPHIC TRAFFIC: AUSTRALIA, 1965–66(*a*)

('000 words)

Class of traffic	Words transmitted to—			Words received from—		
	Commonwealth countries	Foreign countries	Total	Commonwealth countries	Foreign countries	Total
Letter	10,106	10,488	20,594	9,028	9,188	18,216
Ordinary	9,655	7,727	17,382	9,106	6,062	15,168
Press	5,798	436	6,234	6,025	516	6,541
Greetings	1,404	. .	1,404	1,657	. .	1,657
Government	399	622	1,021	580	1,397	1,977
Urgent	573	161	734	423	95	518
Other	13	. .	13	50	1	51
Total	**27,948**	**19,434**	(*b*) **47,382**	**26,870**	**17,259**	(*c*) **44,129**

(*a*) Year ended 31 March. (*b*) Excludes 3,836,000 words to Australian External Territories. (*c*) Excludes 5,537,000 words from Australian External Territories.

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the year ended 31 March 1966.

INTERNATIONAL TELECOMMUNICATION TRAFFIC OTHER THAN TELEGRAPHIC AUSTRALIA, 1965–66(*a*)

Service		Transmissions to—			Transmissions from—		
		Commonwealth countries	Foreign countries	Total (*b*)	Commonwealth countries	Foreign countries	Total (*c*)
Telephone	paid minutes	934,612	503,462	1,438,074	1,113,576	468,075	1,581,651
Telex	paid minutes	311,175	453,752	764,927	361,961	511,863	873,824
Phototelegrams	pictures	1,584	128	1,712	7,482	49	7,531

(*a*) Year ended 31 March. (*b*) Excludes 68,615 paid telephone minutes and 12,485 paid telex minutes transmitted to Australian External Territories. (*c*) Excludes 98,770 paid telephone minutes and 4,291 paid telex minutes transmitted from Australian External Territories.

Coast stations

The Overseas Telecommunications Commission operates fifteen coastal radio stations at points around the Australian coast, three around the Papua-New Guinea coast, and one at Norfolk Island. During the year ended 31 March 1966 the coastal radio service handled 4,601,150 paid words to ships and 2,903,583 words from ships. Ship calls over the radiotelephone service extended over 45,911 paid minutes.

Radiocommunication stations authorised

The following table shows particulars of the different classes of radiocommunication stations authorised in Australia at 30 June 1966. Figures relate to radiocommunication (radio telegraph and radiotelephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are shown on pages 483 and 485 respectively.

RADIOCOMMUNICATION STATIONS AUTHORISED, STATES AND TERRITORIES 30 JUNE 1966

Class of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Transmitting and receiving—									
Fixed(*a*)—									
Aeronautical	11	4	13	5	17	8	8	1	67
Services with other countries—Overseas Telecommunications Commission	59	13	2	..	10	..	..	..	84
Outpost(*b*)	253	1	570	178	420	16	203	..	1,641
Other	324	240	218	72	149	42	59	5	1,109
Land(*c*)—									
Aeronautical	66	23	33	10	26	7	24	2	191
Base—									
Land mobile	1,932	1,279	940	534	449	266	27	98	5,525
Harbour mobile	31	22	24	9	29	13	..	..	128
Coast(*d*)	28	15	24	21	23	22	4	..	137
Special experimental	164	150	52	56	58	14	4	..	498
Mobile(*e*)—									
Aeronautical	626	362	339	153	261	24	38	..	1,803
Land mobile	21,083	14,655	8,416	6,349	4,155	1,945	365	493	57,461
Harbour mobile	219	150	61	47	117	59	..	..	653
Outpost	252	..	371	269	429	58	705	..	2,084
Ship	1,645	473	967	405	439	303	27	..	(*f*)4,441
Amateur	1,618	1,567	583	678	408	174	16	68	5,112
Total, transmitting and receiving	*28,311*	*18,954*	*12,613*	*8,786*	*6,990*	*2,951*	*1,480*	*667*	*f 80,934*
Receiving only—									
Fixed(*a*)	151	198	88	..	51	..	..	..	488
Total, receiving only	*151*	*198*	*88*	..	*51*	..	..	..	*488*
Grand total	**28,462**	**19,152**	**12,701**	**8,786**	**7,041**	**2,951**	**1,480**	**667**	***f* 81,422**

(*a*) Stations established at fixed locations for communication with other stations similarly established. (*b*) Stations established in out-back areas for communication with control stations such as those of the Royal Flying Doctor Service. (*c*) Stations established at fixed locations for communication with mobile stations. (*d*) Land stations for communication with ocean-going vessels. (*e*) Equipment installed in aircraft (aeronautical), motor vehicles (land mobile services), harbour vessels (harbour mobile services) and ocean-going vessels (ships), and mobile equipment of organisations such as the Royal Flying Doctor Service. (*f*) Includes 182 stations which cannot be classified according to State or Territory.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act* 1942–1966 and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service, and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board. Licence fees for commercial broadcasting and television stations are payable under the *Broadcasting Stations Licence Fees Act* 1964–1966 and the *Television Stations Licence Fees Act* 1964–1966 respectively.

Particulars of the composition, functions and responsibilities of the Australian Broadcasting Control Board are shown in Year Book No. 51, pages 594–5.

Broadcasting services

The National Broadcasting Service

In sound broadcasting the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department.

Technical facilities. At 30 June 1966 the National Broadcasting Service comprised seventy-five transmitting stations, of which sixty-seven were medium frequency and eight high frequency.

The medium-frequency transmitters operate in the broadcast band 525 to 1,605 kilocycles a second. The high-frequency stations, using frequencies within the band three to thirty megacycles a second, provide services to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme channels are utilised to link national broadcasting stations in the capital cities of Australia, and, when necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1966 fifty-five of the Australian medium-frequency stations were situated outside the six State capital cities. Additional country stations are to be established, and, when these additions are complete, the medium-frequency and high-frequency stations together will provide for clear reception of the programmes of the National Broadcasting Service in practically every part of Australia.

Programme facilities. The programmes of the Australian Broadcasting Commission cover a wide range of activities. The proportion of broadcasting time allocated to the various types of programme during 1965–66 was as follows: classical music, 25.5 per cent; light entertainment, 12.3 per cent; news, 8.4 per cent; sporting, 4.5 per cent; light music, 3.1 per cent; talks, 6.7 per cent; drama and features, 3.6 per cent; education, 3.6 per cent; Parliament, 4.3 per cent; religious, 2.9 per cent; children's programmes, 2.5 per cent; rural, 1.7 per cent; and non-departmental and special programmes, 20.9 per cent. Further particulars of the operations of the Australian Broadcasting Commission in respect of music, drama and features, youth education, talks, rural broadcasts, news, and other activities are shown in Year Book No. 51, pages 596–7.

The Commercial Broadcasting Service

Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year. The fee payable for a licence is $50 on the grant of the licence, and thereafter $50 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Broadcasting Stations Licence Fees Act* 1964–1966, during the preceding financial year—1 per cent up to $1,000,000; 2 per cent $1,000,001 to $2,000,000; 3 per cent $2,000,001 to $4,000,000; and 4 per cent over $4,000,000.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton and one at Lyndhurst, Victoria, which provide the overseas service known as 'Radio Australia'. As in the case of the National Broadcasting Service, these stations are maintained and operated by the Postmaster-General's Department, and their programmes are arranged by the A.B.C. The programmes, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to south-east Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

Broadcasting stations

The following table shows the number of broadcasting stations in operation at 30 June 1966.

BROADCASTING STATIONS: STATES AND TERRITORIES, 30 JUNE 1966

Type of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
National—									
Medium frequency	18	5	16	8	10	4	4	2	67
High frequency	1	3	2	..	2	..	..	..	8
Overseas (high frequency)	..	8	..	..	..	..	..	..	8
Commercial (medium frequency)	37	20	22	8	14	8	1	1	111
Total	56	36	40	16	26	12	5	3	194

Tables showing the call sign, location, frequency, and aerial power of national and commercial broadcasting stations in operation at 30 June 1966 are shown in *Transport and Communication*, Bulletin No. 57.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department. The first national station (ABN Sydney) commenced regular transmissions on 5 November 1956. At 30 June 1966 thirty-four stations were operating, excluding two translator stations. Five additional national television stations had been authorised but had not commenced to operate by that date. It is planned that all services will be in operation by the end of 1967.

The television programmes provided by the Australian Broadcasting Commission cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30 June 1966 was as follows: drama, 25.9 per cent; talks, 12.1 per cent; sporting, 11.2 per cent; children's session, 8.1 per cent; news, 6.5 per cent; light entertainment, 9.5 per cent; education, 15.0 per cent; music, 2.2 per cent; religious, 2.6 per cent; rural services, 1.9 per cent; non-departmental, 5.0 per cent. Further particulars of the operation of the National Television Service in respect of talks, drama and features, music, rural services, education, news and other activities are shown in Year Book No. 51, pages 598–9. Transmission time for the year ended 30 June 1966 totalled 101,090 hours.

The Commercial Television Service

Commercial television stations are operated under licences granted and renewed by the Postmaster-General. The first commercial station (TCN Sydney) commenced regular transmission on 16 September 1956. At 30 June 1966 thirty-nine television stations were operating.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is $200 for the first year and thereafter $200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Television Stations Licence Fees Act* 1964–1966, during the preceding financial year—1 per cent up to $1,000,000; 2 per cent $1,000,001 to $2,000,000; 3 per cent $2,000,001 to $4,000,000; and 4 per cent over $4,000,000.

Television stations

During the year ended 30 June 1966 the following national television stations commenced regular transmissions: *New South Wales*—ABLN Channel 2, Broken Hill area; ABSN Channel 8, Bega-Cooma area; ABTN Channel 1, Manning River area; ABUN Channel 7, Upper Namoi area; *Victoria*—ABMV Channel 4, Mildura area; ABSV Channel 2, Murray Valley area; *Queensland*—ABWQ Channel 6, Wide Bay area; *South Australia*—ABGS Channel 1, South East area; *Western Australia*—ABAW Channel 2, Southern Agricultural area; ABCW Channel 4, Central Agricultural area. The following commercial television stations also commenced regular transmissions during the year ended 30 June 1966. *New South Wales*—CWN Channel 6, Central Western Slopes area; ECN Channel 8, Manning River area; MTN Channel 9, Murrumbidgee Irrigation area; *Victoria*—STV Channel 8, Mildura area; *Queensland*—TVQ Channel 0, Brisbane; SDQ Channel 4, Southern Downs area; *South Australia*—SAS Channel 10, Adelaide; SES Channel 8, South East area. Particulars of all television stations in operation at 31 December 1964 are shown in Year Book No. 51, pages 598–9. The following table shows the number of television stations in operation at 30 June 1966.

TELEVISION STATIONS: STATES AND AUSTRALIAN CAPITAL TERRITORY 30 JUNE 1966

Type of station and location	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australian Capital Territory	Total
National—								
Metropolitan .	1	1	1	1	1	1	1	7
Country . .	10	7	4	2	3	1	..	27
Total, National	*11*	*8*	*5*	*3*	*4*	*2*	*1*	*34*
Commercial—								
Metropolitan .	3	3	3	3	2	1	1	16
Country . .	10	6	5	1	..	1	..	23
Total, Commercial	*13*	*9*	*8*	*4*	*2*	*2*	*1*	*39*
All stations .	**24**	**17**	**13**	**7**	**6**	**4**	**2**	**73**

Tables showing the call sign, location, frequencies, polarisation, aerial power, and weekly hours of transmission of National and Commercial television stations in operation at 30 June 1966 are shown in *Transport and Communication*, Bulletin No. 57.

Broadcast listeners' and television viewers' licences

Broadcast listeners', television viewers', and combined receiving licences are issued at post offices in accordance with the provisions of the *Broadcasting and Television Act* 1942–1966, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence or a television viewer's licence, whichever is appropriate, authorises the operation of any broadcast receiver or any television receiver, which is: (*a*) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and is ordinarily kept at that address; (*b*) installed in a vehicle which is ordinarily in the possession of the holder, or a member of his family, and is ordinarily kept at that address when not in use. A person who has both broadcast and television receivers at the one address is required to take out a combined receiving licence, provision for which was introduced by legislation effective from 1 April 1965.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school, and at a concession rate to certain classes of pensioners. Receivers provided for the use of inmates of an institution (including a hospital) are covered by an appropriate licence held by the institution. Persons residing in Zone 2 may also be granted a broadcast listener's licence at a reduced rate. Zone 1 is the areas within 250 miles of specified broadcasting stations and Zone 2 is the remainder of Australia.

Each broadcast or television receiver let out on hire (except under a hire purchase agreement) must be covered by a hirer's licence held by the person or firm from whom the receiver is hired. The keeper of a lodging house (which includes a hotel, motel, boarding house, or any other premises where lodging or sleeping accommodation is provided for reward) must take out a lodging house licence for each broadcast or television receiver provided by the proprietor in any room or part of the lodging house occupied or available for occupation by lodgers.

The fees payable for the various classes of licence are as follows.

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES: RATES

Licence		Ordinary rate	Pensioner rate
		$	$
Broadcast listener's licence and hirer's licence for a broadcast receiver	Zone 1	5.50	1.00
	Zone 2	2.80	0.70
Lodging house licence for a broadcast receiver .	Zone 1	5.50	. .
	Zone 2	2.80	. .
Television viewer's licence and hirer's licence for a television receiver		12.00	3.00
Lodging house licence for a television receiver . . .		12.00	. .
Combined receiving licence		17.00	4.00

Numbers of broadcast listeners' and television viewers' licences

BROADCAST LISTENERS' LICENCES IN FORCE(*a*): STATES, 1925 TO 1966

30 June—	N.S.W. (*b*)	Vic.	Qld	S.A.(*c*)	W.A.	Tas.	Aust.
1925 . . .	34,857	20,290	1,267	3,331	3,562	567	63,874
1930 . . .	111,253	140,072	23,335	25,729	5,755	6,048	312,192
1935 . . .	279,166	237,247	67,546	76,515	41,257	20,121	721,852
1940 . . .	458,256	348,264	151,152	124,928	87,790	42,191	1,212,581
1945(*d*) . .	548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(*d*) . .	683,271	505,078	260,033	195,261	133,199	64,369	1,841,211
1955 . . .	746,050	549,690	293,542	223,593	150,199	71,602	2,034,676
1960 . . .	832,659	606,587	344,198	249,148	171,693	78,900	2,283,185
1965(*e*) . .	849,291	644,618	343,401	269,040	175,443	75,849	2,357,642
1966(*e*) . .	929,119	716,594	340,687	281,747	169,709	88,095	2,525,951

(*a*) Includes short-term hirers' licences. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory. (*d*) Excludes licences for receivers in excess of one. These licences were introduced in July 1942 and were abolished on 31 December 1951. (*e*) Includes combined broadcast listeners' and television viewers' licences.

TELEVISION VIEWERS' LICENCES IN FORCE(*a*): STATES, 1957 TO 1966

30 June—	N.S.W. (*b*)	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1957 . . .	28,912	44,986	. .	. .	. .	(*c*) 11	73,909
1960 . . .	409,334	353,091	67,337	84,967	35,604	4,662	954,995
1961 . . .	488,516	401,395	113,954	124,808	69,628	18,985	1,217,286
1962 . . .	564,707	460,558	142,422	143,794	83,951	29,003	1,424,435
1963 . . .	637,766	530,256	178,391	167,502	95,907	45,503	1,655,325
1964 . . .	721,043	581,286	214,763	194,430	115,272	55,305	1,882,099
1965(*d*) . .	787,507	620,996	243,660	208,642	123,741	60,079	2,044,625
1966(*d*) . .	843,103	662,595	277,182	233,726	142,881	66,187	2,225,674

(*a*) Includes short-term hirers' licences. (*b*) Includes Australian Capital Territory. (*c*) These licences were for television sets in the north coast area of Tasmania which were able to receive programmes from Victoria. (*d*) Includes combined broadcast listeners' and television viewers' licences.

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1966 are: New South Wales, 694,910; Victoria, 574,955; Queensland, 217,924; South Australia, 188,695; Western Australia, 114,593; Tasmania, 55,778; Australia, 1,846,855.

Of 2,225,674 television viewers' including combined licences in force at 30 June 1966, 144,736 were held by short-term hirers, and could not be separated into metropolitan licences or country licences. Persons living in the metropolitan area held 1,347,497 or 65 per cent of the remainder. Short-term hirers' licences (included above) at 30 June 1966 were: New South Wales, 53,120; Victoria, 21,887; Queensland, 23,852; South Australia, 26,581; Western Australia, 15,375; and Tasmania, 3,921.

Revenue received from broadcast and television licence fees

The following table shows the revenue received from broadcast listeners' licence fees and television viewers' licence fees during the years 1961–62 to 1965–66. Figures for 1964–65 and 1965–66 include revenue from fees for combined licences which took effect on 1 April 1965.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES STATES, 1961–62 TO 1965–66

($'000)

Year	N.S.W. (*a*)	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	Aust.
1961–62 . .	9,161	7,243	2,923	2,531	1,574	645	24,077
1962–63 . .	9,860	7,968	3,239	2,837	1,737	784	26,425
1963–64 . .	10,560	8,474	3,590	3,063	1,843	865	28,395
1964–65 . .	12,400	9,811	4,230	3,586	2,124	1,006	33,157
1965–66 . .	13,401	10,335	4,545	3,832	2,285	1,047	35,445

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory in respect of broadcast licence fees.

TRAVEL

An article outlining the history and growth of travel and the structure of tourist organisations in Australia, prepared by the Australian National Travel Association, appeared in Year Book No. 52, pages 1158–84. The following pages contain the majority of the tables of the original article which it has been possible to bring up-to-date (others appear in other parts of this chapter or Year Book) advanced to the year 1966, together with some revised descriptive matter.

Overseas movement

Overseas arrivals in, and departures from, Australia are classified into three categories, namely: *permanent movement* (i.e. settlers arriving and Australian residents departing permanently); *long-term movement* (i.e. Australian residents returning to Australia after a stay in a country abroad for one year or longer, or departing from Australia with the intention of staying in a country abroad for one year or more, and overseas visitors arriving with the intention of staying in Australia for a year or more or departing after a stay in Australia of a year or more); and *short-term movement* (i.e. all other movements). Statistics relating to long-term and permanent movement are included in Chapter 8, Population. The statistics which follow relate to short-term movement. Short-term movement refers basically to travellers, Australian residents and visitors from overseas, who intend to, or actually do, spend a period of less than twelve months in a country abroad or in Australia. This definition includes the movement of Australian troops, regardless of length of their stay abroad, and persons who come to Australia or go abroad for paid work or to study (as long as their intended or actual length of stay is less than one year). It excludes visitors to Australia and residents on visits abroad if their stay in Australia or in a country abroad is one year or more, all crew, and persons who arrive in and depart from Australia on the same ship's voyage or on the same flight; but includes persons who, on arrival, declare their purpose of visiting Australia to be 'in transit', as long as a change of ship or flight takes place. Australian residents visiting abroad may be *away from Australia* for more than a year but still be included in the short-term movement as long as their *stay in any one country abroad* is not for a year or more.

Short-term movement—visitors and residents

The following table shows short-term visitor arrivals from, and returns to, overseas countries.

OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT VISITORS, AUSTRALIA, 1957 TO 1966

Year	Arriving			Departing		
	By sea	By air	Total	By sea	By air	Total
1957	20,464	38,152	58,616	23,097	36,988	60,085
1958	19,834	41,508	61,342	21,580	39,452	61,032
1959	18,907	49,213	68,120	21,792	50,238	72,030
1960	19,581	65,042	84,623	21,804	62,866	84,670
1961	19,899	79,397	99,296	25,410	77,130	102,540
1962	19,165	92,259	111,424	23,253	90,330	113,583
1963	18,066	107,311	125,377	22,358	106,973	129,331
1964	18,916	128,962	147,878	22,147	128,494	150,641
1965	20,291	153,037	173,328	24,491	154,442	178,933
1966	19,547	167,715	187,262	25,541	169,335	194,876

Over the period covered by this table departures exceeded arrivals substantially. The reason lies broadly in the difference between the period of intended stay, as stated on the arrival of the visitor, and the period actually spent in Australia, as stated on his departure, resulting in a different classification on arrival from that on departure.

The following table shows corresponding figures in respect of the short-term movement of Australian residents.

OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT AUSTRALIAN RESIDENTS, 1957 TO 1966

Year	Departing			Returning		
	By sea	By air	Total	By sea	By air	Total
1957	28,189	25,249	53,438	29,897	26,120	56,017
1958	28,933	29,955	58,888	28,165	30,900	59,065
1959	33,715	30,916	64,631	28,070	33,684	61,754
1960	37,160	40,601	77,761	31,945	43,222	75,167
1961	41,870	48,010	89,880	34,818	51,390	86,208
1962	39,230	56,642	95,872	34,531	61,384	95,915
1963	41,053	71,374	112,427	34,205	76,977	111,182
1964	43,785	89,463	133,248	36,430	94,924	131,354
1965	51,138	110,554	161,692	43,382	117,162	160,544
1966	54,348	128,813	183,161	46,024	135,746	181,770

Information is also available as to the country of embarkation on the ship or aircraft which brought visitors to Australia and the country of disembarkation from the ship or aircraft which took residents abroad. The shipping and flight routes available to intending passengers must be taken into account when considering these figures. They do not necessarily indicate the country of origin of visitors, nor the country of destination of residents going abroad.

OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT COUNTRY OF EMBARKATION OF VISITORS ARRIVING AND COUNTRY OF DISEMBARKATION OF RESIDENTS DEPARTING AUSTRALIA 1966

Country of embarkation or disembarkation	Visitors arriving			Residents departing		
	By sea	By air	Total	By sea	By air	Total
Africa	348	2,266	2,614	416	943	1,359
America—						
United States of America	1,797	12,160	13,957	1,680	12,263	13,943
Other	714	817	1,531	1,488	1,115	2,603
Asia—						
Hong Kong	771	8,976	9,747	1,304	7,587	8,891
Malaysia and Singapore .	755	14,164	14,919	3,847	11,648	15,495
Other	1,286	12,091	13,377	7,797	12,779	20,576
Europe—						
United Kingdom and Ireland . . .	4,847	7,295	12,142	13,414	4,478	17,892
Other	2,245	4,970	7,215	14,145	8,865	23,010
Oceania—						
New Zealand	4,924	76,626	81,550	7,464	41,858	49,322
Papua and New Guinea .	740	18,915	19,655	1,094	14,526	15,620
Other	1,120	9,435	10,555	1,699	12,751	14,450
Total	**19,547**	**167,715**	**187,262**	**54,348**	**128,813**	**183,161**

For visitors arriving information is also available of their country of last stay (i.e. in which they last stayed for one year or more). No information is available regarding the country in which Australian residents going abroad in the short-term movement intend to spend most time.

OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT COUNTRY OF RESIDENCE(*a*), AUSTRALIA, 1966

Country of residence(*a*)	By sea	By air	Total
Africa—			
Commonwealth countries . . .	206	1,343	1,549
South Africa	196	1,167	1,363
Other	31	412	443
America—			
Canada	913	3,042	3,955
Other Commonwealth countries . .	16	156	172
United States of America . . .	2,207	25,032	27,239
Other	37	804	841
Asia—			
Ceylon, India and Pakistan . .	213	1,786	1,999
Hong Kong	467	2,513	2,980
Malaysia and Singapore . . .	591	5,312	5,903
Other Commonwealth countries . .	24	85	109
Japan	196	3,727	3,923
Other	145	5,180	5,325

(*a*) Country in which the visitor was last resident for a period of one year or more.

OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT COUNTRY OF RESIDENCE(*a*), AUSTRALIA, 1966—*continued*

Country of residence(*a*)	By sea	By air	Total
Europe—			
United Kingdom and Ireland	4,685	18,439	23,124
Other Commonwealth countries	46	139	185
France	114	1,415	1,529
Germany	380	2,209	2,589
Greece	77	319	396
Italy	185	1,098	1,283
Netherlands	997	1,826	2,823
Switzerland	83	912	995
Other	292	2,781	3,073
Oceania—			
Fiji	203	2,130	2,333
New Zealand	5,342	63,446	68,788
Papua and New Guinea	944	18,013	18,957
Other Commonwealth countries	667	1,305	1,972
Other	290	3,124	3,414
Total	**19,547**	**167,715**	**187,262**

(*a*) Country in which the visitor was last resident for a period of one year or more.

The intended length of stay by visitors to Australia and by residents going abroad is related to the purpose of the journey in the following tables.

OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT LENGTH OF STAY, BY STATED PURPOSE OF JOURNEY, 1966

Intended length of stay	Business	Holiday	Education	Other and not stated	In transit(*a*)	Total
Under 1 week	7,159	8,447	234	1,366	21,362	38,568
1 week and under 2 weeks	8,470	14,797	504	1,423	2,226	27,420
2 weeks and under 3 weeks	6,744	17,670	444	1,441	921	27,220
3 weeks and under 1 month	2,323	13,189	224	661	327	16,724
1 month and under 2 months	4,450	16,215	312	1,755	529	23,261
2 months and under 3 months	1,768	8,947	327	1,075	. .	12,117
3 months and under 4 months	1,356	8,186	1,218	956	. .	11,716
4 months and under 6 months	575	3,372	324	331	. .	4,602
6 months and under 12 months	1,161	6,245	4,038	1,144	. .	12,588
Indefinite, not stated, etc.	725	3,019	552	1,622	7,128	13,046
Total	**34,731**	**100,087**	**8,177**	**11,774**	**32,493**	**187,262**

(*a*) Includes those visitors who stated 'in transit' as the purpose of their journey to Australia and whose intended length of stay did not exceed one month, but excludes passengers passing through Australia without change of ship or aircraft.

AUSTRALIAN RESIDENTS DEPARTING—SHORT-TERM MOVEMENT LENGTH OF STAY, BY STATED PURPOSE OF JOURNEY, 1966

Intended length of stay	Business	Holiday	Education	Other and not stated	Total
Under 1 week	4,445	1,928	107	499	6,979
1 week and under 2 weeks . .	5,540	7,744	322	606	14,212
2 weeks and under 3 weeks .	4,175	17,791	386	714	23,066
3 weeks and under 1 month .	2,357	14,611	298	447	17,713
1 month and under 2 months .	6,364	20,561	562	1,184	28,671
2 months and under 3 months .	4,403	12,684	308	827	18,222
3 months and under 4 months .	3,004	9,176	312	887	13,379
4 months and under 6 months .	1,350	8,146	149	465	10,110
6 months and under 12 months .	2,499	22,875	574	2,587	28,535
Indefinite, not stated, etc. . .	2,065	8,379	266	11,564	22,274
Total	**36,202**	**123,895**	**3,284**	**19,780**	**183,161**

The variation in the length of stay of visitors from different countries is indicated in the next table.

OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT COUNTRY OF RESIDENCE(*a*) AND INTENDED LENGTH OF STAY AUSTRALIA, 1966(*b*)

Country of residence (*a*)	Intended length of stay										
	Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 weeks and under 1 month	1 and under 2 months	2 and under 3 months	3 and under 4 months	4 and under 6 months	6 and under 12 months	Indefinite, not stated, etc.	Total (*b*)
Africa . . .	181	268	249	122	379	345	261	173	233	109	2,320
America—											
U.S.A. . .	5,052	6,029	4,337	1,683	3,471	1,426	857	412	1,062	602	24,931
Other . . .	516	647	576	325	786	478	265	190	299	266	4,348
Asia—											
Hong Kong .	227	256	237	121	302	169	199	64	409	193	2,177
Malaysia and Singapore . .	273	467	492	251	703	391	346	186	1,299	318	4,726
Other . . .	1,120	1,669	1,483	392	1,472	746	627	227	626	273	8,635
Europe—											
United Kingdom and Ireland .	1,331	1,962	2,340	1,371	3,454	2,105	1,990	1,024	2,034	852	18,463
Other . . .	1,154	1,263	1,247	359	1,185	693	1,096	519	1,793	492	9,801
Oceania—											
New Zealand .	5,551	10,874	13,810	10,843	6,663	2,339	1,667	698	2,138	1,979	56,562
Papua and New Guinea . .	1,403	1,209	972	617	3,007	2,548	3,587	876	2,201	492	16,912
Other . . .	398	550	556	313	1,310	877	821	233	494	342	5,894
Total . .	**17,206**	**25,194**	**26,299**	**16,397**	**22,732**	**12,117**	**11,716**	**4,602**	**12,588**	**5,918**	**154,769**

(*a*) The country in which the visitor was last resident for a period of one year or more. (*b*) Excludes 32,493 passengers who stated 'in transit' as the purpose of their journey to Australia and whose intended length of stay did not exceed one month.

The seasonal pattern of overseas short-term travel to and from Australia is shown in the next table which provides monthly figures of arrivals and departures during 1966.

OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT MONTH OF ARRIVAL OR DEPARTURE, AUSTRALIA, 1966

Month	Visitors						Residents					
	Arriving			Departing			Departing			Returning		
	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total
January .	1,239	13,982	15,221	2,457	18,563	21,020	4,240	9,956	14,196	2,955	17,965	20,920
February .	2,114	15,042	17,156	2,218	13,554	15,772	4,328	7,507	11,835	3,512	10,239	13,751
March .	1,795	13,863	15,658	2,613	14,659	17,272	5,807	9,796	15,603	2,528	9,331	11,859
April . .	1,419	12,975	14,394	2,670	14,087	16,757	6,740	11,708	18,448	3,294	8,882	12,176
May . .	1,974	13,067	15,041	2,239	14,626	16,865	5,774	13,493	19,267	3,343	10,211	13,554
June . .	723	10,229	10,952	1,964	10,741	12,705	5,723	9,829	15,552	2,810	10,668	13,478
July . .	867	11,777	12,644	989	11,242	12,231	1,970	9,012	10,982	2,121	9,723	11,844
August .	1,270	14,563	15,833	2,359	14,029	16,388	4,138	11,125	15,263	3,577	11,377	14.954
September .	816	13,572	14,388	1,418	14,259	15,677	2,253	9,114	11,367	2,865	14,126	16,991
October .	1,840	16,021	17,861	1,879	14,400	16,279	4,978	9,465	14,443	7,133	12,356	19,489
November .	2,307	13,841	16,148	2,434	15,900	18,334	4,060	8,476	12,536	5,988	10,905	16,893
December .	3,183	18,783	21,966	2,301	13,275	15,576	4,337	19,332	23,669	5,898	9,963	15,861
Total .	**19,547**	**167,715**	**187,262**	**25,541**	**169,335**	**194,876**	**54,348**	**128,813**	**183,161**	**46,024**	**135,746**	**181,770**

The sex, marital status and age of travellers in the short-term movement to and from Australia are shown in the next table.

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING SHORT-TERM MOVEMENT: MARITAL STATUS AND AGE, AUSTRALIA, 1966

Characteristics	Visitors arriving			Residents departing		
	Males	Females	Persons	Males	Females	Persons
Marital status—						
Never married . .	37,214	27,750	64,964	37,353	29,115	66,468
Married	68,968	40,326	109,294	63,762	40,287	104,049
Widowed or divorced .	4,049	8,955	13,004	3,418	9,226	12,644
Total	*110,231*	*77,031*	*187,262*	*104,533*	*78,628*	*183,161*
Age (years)						
9 and under . . .	5,989	5,748	11,737	5,030	4,770	9,800
10 to 19	7,870	8,049	15,919	7,420	8,010	15,430
20 to 49	66,246	35,517	101,763	64,397	38,397	102,794
50 and over . . .	30,126	27,717	57,843	27,686	27,451	55,137
Total	*110,231*	*77,031*	*187,262*	*104,533*	*78,628*	*183,161*

Direct transit travellers

As stated on page 486, all the preceding figures in this section exclude persons who arrive in and depart from Australia on the same ship's journey or on the same flight. Persons thus excluded are not all normally considered visitors to Australia. For instance, settlers or other persons going to New Zealand, Papua and New Guinea or other neighbouring countries or leaving such countries may travel through Australia on their way. On the other hand, all persons visiting Australia on cruise vessels, which may remain in Australian waters for a considerable time, are also treated as direct transit travellers and are thus excluded from the figures shown on previous pages. In 1966, 34,366 persons were reported as direct transit passengers on ships calling at Australian ports, accounting for approximately 218,000 passenger-days between arrival at first port and departure from last port in Australia.

OVERSEAS SHIPPING PASSENGERS IN DIRECT TRANSIT(*a*) AUSTRALIA, 1966

Approximate period from first to last Australian port (days)	Passengers	Passenger-days
	per cent	per cent
2 or less	13.9	3.0
3– 4	17.4	9.1
5– 6	16.3	14.6
7– 8	23.6	27.8
9–10	22.9	32.9
11–21	5.5	10.6
22 and over	0.4	2.0
Total	**100.0**	**100.0**

(*a*) Persons who arrived in and departed from Australia on the same ship's voyage.

Interstate and other internal movement

Information about the volume and pattern of travel within Australia is limited. Figures are available on passengers transported in Australia by sea, air and rail, but the last two do not distinguish different types of travellers, nor provide detail of their origins and destinations. The following tables show particulars of passengers carried interstate by sea and on internal air services. Statistics of rail passengers are shown on pages 449–51.

INTERSTATE PASSENGERS BY SEA, BY STATE OR TERRITORY OF EMBARKATION AND OF DISEMBARKATION, 1966(*a*)

State or Territory of embarkation	State or Territory of disembarkation							
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Total
New South Wales .	1,287	4,377	1,112	1,773	3,349	11,703	34	23,635
Victoria . .	5,161	2,038	926	411	1,943	46,541	. .	57,020
Queensland . .	467	370	35	88	203	35	. .	1,198
South Australia .	694	177	13	34	683	1	. .	1,602
Western Australia .	1,899	1,293	193	227	106	. .	999	4,717
Tasmania . .	11,217	45,045	36	52	16	. .	. .	56,366
Northern Territory .	4	43	6	. .	741	. .	. .	794
Total . .	**20,729**	**53,343**	**2,321**	**2,585**	**7,041**	**58,280**	**1,033**	**145,332**

(*a*) Excludes crew and persons carried as supernumerary crew.

The table above includes passengers on interstate journeys beginning and ending in the same State or Territory. It excludes, however, passengers on cruises from Australia to the south-western Pacific area and back except when they disembarked in a State or Territory other than the State or Territory of embarkation. It is estimated that about 18,770 travellers embarked on such cruises in 1966. All these, and about one in four of the interstate passengers included above, were carried on overseas vessels. Most of the passengers carried interstate by Australian-licensed vessels travelled between the mainland and Tasmania.

The movement figures in the following table represent total embarkations on, and disembarkations from, each airline flight at the airports specified. Movements to and from Papua and New Guinea and Norfolk Island are included.

CIVIL AVIATION: INTERNAL PASSENGER MOVEMENT AT PRINCIPAL AUSTRALIAN AIRPORTS, 1961-62 TO 1965-66

Airport	1961–62	1962–63	1963–64	1964–65	1965–66
Sydney	1,493,820	1,566,778	1,802,618	2,086,571	2,244,218
Melbourne	1,133,534	1,210,093	1,393,227	1,587,833	1,748,478
Brisbane	506,642	548,044	635,468	754,296	814,097
Adelaide	400,372	468,576	526,764	618,101	738,402
Canberra	199,507	221,810	263,331	318,882	331,203
Perth	129,181	158,606	175,351	209,972	257,406
Hobart	120,274	128,412	143,066	158,287	167,077
Launceston	126,296	131,021	142,490	152,175	155,057
Townsville	87,038	95,227	111,207	137,079	152,384
Coolangatta	54,381	54,387	61,949	76,720	88,456
Cairns	55,829	62,720	69,914	83,503	83,996
Mackay	38,502	38,270	45,310	61,071	72,411
Rockhampton	37,981	41,623	46,524	55,809	63,250
Darwin	25,803	29,721	34,159	38,804	49,131
Devonport	34,329	35,971	39,377	45,401	48,089
Wagga	39,868	36,836	41,135	43,404	46,179
Cooma	39,156	40,733	46,864	50,757	44,098
Kingscote	29,008	30,792	32,821	40,591	42,197
Dubbo	37,238	36,423	40,791	34,904	41,903
Port Lincoln	30,342	32,057	33,859	38,858	41,024
Wynyard	27,907	29,715	32,020	34,966	40,617
Tamworth	30,522	31,592	36,869	40,253	37,589

Tourist organisation

The *Australian Tourist Commission* was established by the Commonwealth Government under the *Australian Tourist Commission Act* 1967. Its objectives are the encouragement of visits to Australia, and travel in Australia, by people from other countries. The Commission comprises a Chairman appointed by the Commonwealth Government; a representative of each of two Commonwealth Departments; two appointees to represent private industry, selected by the Commonwealth Government from a panel of names put forward by the Australian National Travel Association; and two non-voting representatives nominated by the State Governments.

For 1967–68 the Commonwealth Government provided $1,550,000 to the Commission, to be spent on advertising campaigns and in associated promotional activities in overseas countries, particularly in New Zealand, North America, the United Kingdom, and Western Europe. The Commission brings to Australia travel agents, writers, photographers, and other publicists to see at first hand what the country has to offer visitors. It takes no part in the detailed organisation of tourist activities in Australia. It has its Head Office in Melbourne and branch offices in London, New York, San Francisco, Auckland, and Sydney.

The *Australian National Travel Association*, which is described on pages 1161–2 of the special article Travel and Tourism in Year Book No. 52, was formerly responsible, *inter alia*, for the promotion overseas of Australia as a tourist destination.

Following the creation of the Australian Tourist Commission, it now concentrates on the encouragement of the growth and development of travel and tourism within Australia, particularly by improving the standard and variety of facilities provided by private enterprise for the use of overseas visitors. It acts as a co-ordinating body for its members, provides a clearing house for information, and conducts surveys into aspects of tourist activity. The Association is governed by a Board representative of industries and services such as transport, accommodation, travel agents, Chambers of Commerce, the Australian Automobile Association, and retail traders. An Executive Committee guides the Association's activities between Board meetings.

CHAPTER 14

WELFARE SERVICES

This chapter relates to welfare services other than those concerned specifically with education, health and repatriation. The latter are dealt with, in the main, in the relevant chapters of this Year Book. Apart from a summary of government expenditure on welfare services and short descriptions of certain interstate organisations providing welfare services, the chapter is devoted to a description in some detail of the services provided by the Commonwealth. For information on the many important welfare services provided by State and local governments, especially in the fields of child and Aboriginal welfare, reference should be made to the Year Books or Statistical Registers of the States and the annual reports of the State departments concerned. Information on pension and superannuation schemes provided for government and semi-government employees, mine workers, parliamentarians, and employees of private business is included in the chapter Private Finance.

In addition, there are numerous services of this nature provided by charitable and other non-government institutions and organisations. There are institutions providing shelter and/or caring for needy, aged, infirm or handicapped persons, neglected children, destitute persons, wayward boys and girls, and the like. Many organisations, too, provide aid in kind (food, clothing, etc.), auxiliary medical and nursing services, and other assistance to relieve suffering and hardship. Considerable work is also done by such organisations in the rehabilitation or establishment in the community of various types of people, such as prisoners and migrants, and in the prevention and alleviation of cruelty and maltreatment of any sort. Comprehensive information regarding the activities of such organisations is not available.

Further information on subjects dealt with in this chapter is included in the annual bulletins *Australian National Accounts*, *Commonwealth Finance*, and *State, Territory and Local Government Authorities' Finance and Government Securities.* Current and summarised information on Commonwealth social services is contained in the *Quarterly Summary of Australian Statistics* and the *Monthly Review of Business Statistics.*

Expenditure on welfare services

This section deals with various government payments for the relief of the aged, indigent, infirm, widowed and unemployed, assistance to families, Aboriginal welfare, etc. For summary statements of cash payments to persons made by public authorities under various functional heads, *see Australian National Accounts* and the other annual bulletins mentioned above.

Commonwealth expenditure on welfare services

Information concerning the cost of administering each Commonwealth benefit separately is not compiled. However, the chapter Public Finance, and, in more detail, the annual bulletin *Commonwealth Finance*, present an analysis of Commonwealth expenditure by function and economic type. from which some estimates of administrative costs can be derived. Commonwealth expenditure on Aboriginal welfare is included on page 498 and that on grants for the construction of homes for the aged and for accommodation for disabled persons on pages 512 and 513 respectively.

The National Welfare Fund

The National Welfare Fund was established by the *National Welfare Fund Act* 1943 to finance a scheme of national welfare and has operated from 1 July 1943. At its commencement it was used to finance funeral benefits and maternity allowances, but other social and health benefits were made a charge on the fund from time to time, and at present expenditure on all benefits except repatriation, telephone rental concessions, and a few minor social and health benefits is met from the fund. The fund is used only to finance the benefits themselves; it is not used to finance the cost of administering the benefits, or of capital works sssociated with the benefits.

NATIONAL WELFARE FUND: RECEIPTS, EXPENDITURE AND BALANCES 1961-62 TO 1965-66

($'000)

Year	Income			Expenditure	Balance in fund at end of year
	Contribution from Consolidated Revenue	Interest on investments	Total		
1961–62 . . .	730,383	4,075	734,457	730,383	410,108
1962–63 . . .	758,589	4,118	762,706	758,589	414,225
1963–64 . . .	832,696	4,157	836,853	832,696	418,382
1964–65 . . .	890,366	4,199	894,564	890,366	422,581
1965–66 . . .	941,574	4,241	945,815	941,574	426,822

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND ON SOCIAL AND HEALTH SERVICES: STATES, TERRITORIES, ETC., 1965–66

($'000)

Service	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (*a*)	A.C.T. (*a*)	Abroad	Total
Social Services—										
Age and Invalid Pensions . . .	174,201	111,019	70,859	39,691	30,760	13.439	1,102	794	489	442,355
Child Endowment(*b*) .	61,050	49,235	26,626	16,988	13,624	6,318	1,057	1,478	56	176,432
Commonwealth Rehabilitation Service .	537	427	251	203	187	54	..	..	..	1,660
Funeral Benefits . .	410	282	165	91	66	33	..	2	..	1,050
Maternity Allowances .	2,475	2,040	1,075	657	536	243	55	70	8	7,159
Unemployment Benefits	2,773	1,216	2,458	709	368	275	3	11	..	7,813
Sickness Benefits .	2,665	1,667	961	512	457	174	20	27	..	6,483
Special Benefits(*c*) .	368	551	174	62	47	57	..	1	..	1,261
Widows' Pensions .	18,753	12,692	7,987	4,802	3,602	1.791	159	165	65	50,017
National Health Services—										
Hospital Benefits .	25,086	13,349	9,378	5,458	5,286	1,991	85	110	..	60,743
Medical Benefits . .	16,477	11,156	4,144	4,978	3,387	1,140	..	..	..	41,282
Medical Benefits for Pensioners . .	5,389	3,404	1,907	1,285	958	386	..	35	..	13,365
Milk for School Children . . .	2,910	2,382	1,256	799	619	398	56	74	..	8,493
Pharmaceutical Benefits	27,611	18,951	9,013	5,670	4,205	2,098	..	(*d*) 166	..	67,713
Pharmaceutical Benefits for Pensioners . .	10,034	5,674	3,772	2,289	1,665	637	..	..	..	24,071
Tuberculosis Campaign—										
Allowances . .	437	291	344	93	61	50	7	2	..	1,286
Maintenance and surveys(*e*) . .	6,585	3,019	2,068	662	697	338	..	9	..	13,379
Miscellaneous(*f*) . .	185	104	406	20	28	82	86	*g* 2,362	(*h*) 181	3,453
Rental Losses(*h*) . .	..	..	213	..	..	..	..	..	..	213
Home Savings Grants(*i*) .	5,017	4,184	1,634	1,313	762	325	6	106	..	13,346
Total . . .	**362,964**	**241,645**	**144,693**	**86,281**	**67,316**	**29,829**	**2,636**	**5,411**	**799**	**941,574**

(*a*) Payments for some health services to residents of the Northern Territory and the Australian Capital Territory are included in the amounts shown for States. (*b*) Includes payments for student children aged 16 to 21 years. (*c*) Includes special benefits to migrants in reception and training centres. (*d*) Includes payments to the Royal Flying Doctor Service and Bush Nursing Centres. (*e*) Mainly payments to State Governments as a contribution towards the cost of surveys and the maintenance of institutions for the treatment of tuberculosis. (*f*) This item covers the cost of the Commonwealth Health Laboratory Services, subsidies to home nursing services, the cost of radio-active isotopes provided under the National Health Act, running expenses of the Blood Fractionation Plant, purchase of poliomyelitis vaccine, and hearing aids for school children. (*g*) Includes running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratories, $847,000, and part cost of the Commonwealth Health Laboratories, $154,000; subsidies to home nursing services $546,000; and purchase of poliomyelitis vaccine, $813,000. (*h*) Contributions to States, under Commonwealth and State Housing Agreement 1945, for losses on rental housing. (*i*) Under the *Home Savings Grant Act* 1964.

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND ON SOCIAL AND HEALTH SERVICES: TOTAL, 1961–62 TO 1965–66

Service	1961–62	1962–63	1963–64	1964–65	1965–66	
					Amount	Per head
	$'000	$'000	$'000	$'000	$'000	$
Social Services—						
Age and Invalid Pensions	360,489	375,507	399,880	426,597	442,355	38.64
Child Endowment(*a*)	132,755	135,421	168,758	172,830	176,432	15.41
Commonwealth Rehabilitation Service	1,447	1,395	1,489	1,604	1,660	0.14
Funeral Benefits	752	802	812	866	1,050	0.09
Maternity Allowances	7,817	7,563	7,457	7,294	7,159	0.63
Unemployment, Sickness and Special Benefits(*c*)	31,810	29,315	21,625	14,540	15,557	1.36
Widows' Pensions	30,189	31,353	41,569	47,044	50,017	4.37
National Health Services—						
Hospital Benefits	44,404	47,326	56,216	58,791	60,743	5.31
Medical Benefits	21,823	23,474	24,848	35,277	41,282	3.61
Medical Benefits for Pensioners	8,796	9,146	9,531	9,320	13,365	1.17
Milk for School Children	7,483	7,454	7,775	8,059	8,493	0.74
Pharmaceutical Benefits	52,185	57,044	58,237	60,638	67,713	5.91
Pharmaceutical Benefits for Pensioners	18,195	19,867	20,602	21,564	24,071	2.10
Tuberculosis Campaign—						
Allowances	1,746	1,607	1,593	1,458	1,286	0.11
Maintenance and surveys(*e*)	8,666	9,748	10,473	10,146	13,379	1.17
Miscellaneous(*f*)	1,696	1,529	1,785	2,859	3,453	0.30
Rental Losses(*h*)	130	37	45	130	213	0.02
Home Savings Grants(*i*)	..	..	..	11,349	13,346	1.17
Total	**730,383**	**758,589**	**832,696**	**890,366**	**941,574**	**82.25**

(*a*) *See* footnote (*b*) to table on page 496.
For footnotes (*c*), (*e*), (*f*), (*h*) and (*i*), *see* table on page 496.

State expenditure on certain welfare services

The following table shows net expenditure from State government funds on certain welfare services. The figures exclude expenditure on unemployment, bush fire, flood, etc., relief, Aboriginal welfare, and some other items which are excluded because information cannot be obtained for all States. Loan fund expenditure is excluded also. Because of differences in organisation and accounting methods, the information shown for some classes is not on exactly the same basis for all States; it may also be incomplete because particulars of some activities are not separately recorded and are therefore excluded. The expenditure shown is 'net' in the sense that receipts for services rendered have been deducted from gross expenditure.

NET EXPENDITURE BY STATE GOVERNMENTS ON CERTAIN WELFARE SERVICES, 1965–66
($'000)

Service	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Relief of aged, indigent and infirm, child welfare, etc.	13,199	9,157	4,406	2,606	3,084	1,455	33,907
Miners' phthisis	72	59	..	..	58	..	189
Total	**13,271**	**9,216**	**4,406**	**2,606**	**3,142**	**1,455**	**34,096**

Aboriginal welfare

Expenditure out of Commonwealth and State Consolidated Revenue Funds specifically on Aboriginal welfare during the years 1961–62 to 1965–66 is shown in the following table. Expenditure from Trust Funds and Loan Funds on this item is not available. As with the table in the previous paragraph, the figures hereunder may be incomplete because particulars of some activities are not available.

ABORIGINAL WELFARE: EXPENDITURE FROM CONSOLIDATED REVENUE FUNDS, STATES AND TERRITORIES, 1961–62 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	N.T.	A.C.T.	Aust.
1961–62	562	100	1,607	1,048	2,601	2,024	9	7,950
1962–63	689	120	1,610	1,025	3,318	2,595	11	9,368
1963–64	605	120	1,705	1,212	1,550	3,045	11	8,248
1964–65	712	130	1,764	1,270	1,880	3,201	6	8,965
1965–66	834	131	2,016	1,428	2,151	2,595	7	9,162

Commonwealth social services

Under the provisions of section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:

'(xxiii) Invalid and old age pensions:

'(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:'.

The latter paragraph was inserted in the Constitution after being accepted by the electors at a referendum on 28 September 1946. The enabling Act was assented to on 19 December 1946.

Before 1947, Commonwealth social service benefits were paid under various Acts. On 1 July 1947, with the passage of the *Social Services Consolidation Act* 1947, all Acts providing social service benefits were amalgamated. This Act eliminated certain anomalies and obsolete provisions, and changed the title 'old-age pension' to 'age pension'. The word 'Consolidation' was dropped from the short title of the Act in 1954. The Act is at present styled the *Social Services Act* 1947–1966.

Social service benefits provided

The social service benefits provided by the Commonwealth Government under the *Social Services Act* 1947–1966, and the date on which each came into operation, are:

Age pension	1 July 1909
Child endowment	1 July 1941
Child endowment—student children	14 January 1964
Commonwealth Rehabilitation Service	10 December 1948
Funeral benefit	1 July 1943
Guardians' allowances for widowers and other unmarried age and invalid pensioners with children in their care	14 October 1965
Invalid pension	15 December 1910
Maternity allowance	10 October 1912
Sickness benefit	1 July 1945
Special benefit	1 July 1945
Supplementary assistance (age, invalid and widows' pensions)	15 October 1958
Unemployment benefit	1 July 1945
Widows' pensions	30 June 1942
Widows' pensions—children's allowances	2 October 1956
Wives' and children's allowances for pensioners who are invalids	8 July 1943
Wives' and children's allowances for age pensioners	14 October 1965

Age and invalid pensions

Age pensions are payable to men, sixty-five years of age and over, and women, sixty years of age and over. who have lived in Australia continuously for at least ten years, which need not be immediately prior to the date of claim for a pension. If a person has completed five years, but not ten years, continuous residence, and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Any periods of absence during which a person's home remains in Australia, and absences in certain other circumstances, are counted as residence, and any absence in an external Territory of the Commonwealth, while not counting as residence, does not interrupt continuity of residence in Australia. Residence in New Zealand or the United Kingdom may be treated as residence in Australia.

Invalid pensions are payable to persons, sixteen years of age and over, who have lived in Australia for a continuous period of five years (including certain absences) at any time, and who are permanently incapacitated for work to the extent of at least eighty-five per cent, or permanently blind. If the incapacity or blindness first occurred outside Australia, except during a temporary absence, a period of ten years continuous residence is necessary, but if a person has completed five years, but not ten years, continuous residence and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Residence in New Zealand or the United Kingdom may be treated as residence in Australia. Certain absences do not affect eligibility.

Current rates of pension. The maximum standard rate was increased to $676 per annum ($13 a week) from 30 September 1966. This is payable to a single, widowed, or divorced pensioner, a married man whose wife receives a wife's allowance, or a married pensioner whose spouse is not receiving an age or invalid pension, an unemployment, sickness or special benefit, a tuberculosis allowance, or a service pension. The maximum married rate was also increased from 30 September 1966, and is $1,222 per annum ($23.50 a week) for a married couple, both pensioners, i.e. $611 per annum ($11.75 a week) each. For a married person whose spouse receives an unemployment, sickness or special benefit, a tuberculosis allowance, or a service pension, the maximum rate is also $611 per annum ($11.75 a week).

A wife's allowance may be granted, subject to the means test, to the wife of an invalid pensioner or of an age pensioner permanently incapacitated, blind, or who has the care of a child, if she is not receiving an age or invalid pension, or a service pension under the *Repatriation Act* 1920–1966 (*see* Chapter 5, Repatriation). The maximum annual rate of a wife's allowance is $312 per annum ($6 a week). A child's allowance of $78 per annum ($1.50 a week), free of the means test, is payable for the first child under sixteen years, and the pension may also be increased by $78 per annum ($1.50 a week), subject to the means test, for each other child under sixteen years. A guardian's allowance of up to $4 a week is payable to widowers and other unmarried age or invalid pensioners who have one or more children in their care.

Eligibility for a child's allowance and the additional pension for children is extended to include a child over sixteen years until he reaches twenty-one years, provided he is wholly or substantially dependent on the pensioner and is receiving full-time education at a school, college or university. Supplementary assistance of up to $2 a week, subject to a means test, is available to pensioners receiving the maximum standard rate pension if they pay rent or pay for board and lodging or for lodging. From 1958 to October 1965 the rate was $1 a week, and supplementary assistance was available only to maximum standard rate pensioners paying rent who were considered to depend entirely on the pension. At 30 June 1966, 546,940 age pensioners (eighty-six per cent of all age pensioners) and 99,305 invalid pensioners (ninety-three per cent of all invalid pensioners) were receiving the maximum pension.

If the pensioner is an inmate of a benevolent home, the maximum payable to him is $4.50 a week if he is eligible for the standard rate pension, or $4.20 a week otherwise. The rest is paid to the home for his maintenance. The balance is not paid to the home if the pensioner is in an infirmary ward, as payments under the Commonwealth Hospital Benefits Scheme are made in that case. The maximum payable to a standard rate pensioner is increased if supplementary assistance is also payable.

A table showing the maximum rates of pension operating since 1 July 1909 at dates prior to 14 October 1965 is included on page 608 of Year Book No. 51. Details of increased allowances payable from 14 October 1965 to 30 September 1966, when the current rates of pensions and allowances became operative, are included on page 505 of Year Book No. 52.

Means test. Age and invalid pensions (other than pensions paid to blind persons) and allowances paid to wives (but not a child's allowance of $1.50 a week) are subject to a means test which applies to income and property. From March 1961 the means tests which previously applied separately on income and property were merged into one composite means test. The rate of pension payable depends on the claimant's *means as assessed.* These consist of his annual rate of income plus a property component equal to $2 for each complete $20 of his net property above $400. A person's *means as assessed* may consist entirely of income, entirely of the property component, or of various combinations of income and property component. From 27 April 1967 the pension payable is calculated by deducting from the applicable maximum annual rate of pension, plus, where applicable, guardian's allowance and/or additional pension for children, the amount by which *means as assessed* exceed $442 where the pensioner is married or $520 where the pensioner is single, widowed or divorced. Where the standard rate applies, no pension is payable where the value of property is $12,360 or more ($14,440 or more if qualified for a guardian's allowance) if the pensioner is single, widowed or divorced; or $11,580 if the pensioner is married. Where the married rate applies, no pension is payable where the value of property is $10,940 or more. The wife's allowance is affected by income and property on the same basis as the pension, i.e. it is reduced by the amount of *means as assessed* over $442. Supplementary assistance is reduced by the amount by which *means as assessed* exceed $52.

Certain types of income are excepted. The main exceptions are: income from property; gifts or allowances from children, parents, brothers, or sisters; benefits (other than annuities) from friendly societies; child endowment or other payments for children; Commonwealth health benefits and amounts received from registered benefit organisations. A pensioner's income may also be reduced by up to $156 per annum ($3 a week) for each dependent child under sixteen years (twenty-one years if a full-time student).

Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to $1,500) of life insurance policies, the capital value of annuities or contingent interests, and the value of any reversionary interests.

For the purposes of the means test the income and property of a married person are considered to be half the total income and property of the husband and wife unless they are legally separated or in other special circumstances.

AGE AND INVALID PENSIONS: STATES AND TERRITORIES, 30 JUNE 1966

Pensions in force	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age—									
Males	73,362	46,150	33,180	17,330	13,020	5,809	647	298	189,796
Females	173,955	117,006	68,428	42,148	30,856	13,372	679	744	447,188
Persons	*247,317*	*163,156*	*101,608*	*59,478*	*43,876*	*19,181*	*1,326*	*1,042*	*636,984*
Invalid—									
Males	22,907	13,910	9,816	4,607	4,817	2,027	243	113	58,440
Females	19,518	11,277	8,002	3,914	3,758	1,417	165	154	48,205
Persons	*42,425*	*25,187*	*17,818*	*8,521*	*8,575*	*3,444*	*408*	*267*	*106,645*

NEW PENSIONERS, BY SEX AND MARITAL STATUS: AUSTRALIA 1965–66

Marital status	Age pensioners			Invalid pensioners			Total
	Males	Females	Persons	Males	Females	Persons	
Single	2,466	4,263	6,729	3,778	2,955	6,733	13,462
Married	14,609	17,157	31,766	6,380	2,670	9,050	40,816
Widowed	2,357	9,963	12,320	587	644	1,231	13,551
Divorced	356	757	1,113	326	341	667	1,780
Total	**19,788**	**32,140**	**51,928**	**11,071**	**6,610**	**17,681**	**69,609**

The average age of new age pensioners was 68.5 years for men and 65.6 years for women.

NEW INVALID PENSIONERS, BY AGE GROUP: AUSTRALIA, 1965-66

	16–19 years	20–44 years	45–59 years	60–64 years	65 years and over	Total
Number . . .	1,958	3,201	8,369	3,698	455	17,681
Per cent . . .	11	18	47	21	3	100

Persons at or above the qualifying age for age pensions when granted invalid pensions are generally those with insufficient residence to qualify for age pension.

AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA, 1961-62 TO 1965-66

Year	Pensioners at 30 June				Total payments during year (b)	Average weekly pension as at 30 June		
	Age		Invalid	Total		Age (c)	Invalid (c)	Age and invalid combined (c)
	Number	Rate (a)						
			No.	No.	$'000	$	$	$
1961–62 . .	594,012	529	97,246	691,258	360,489	10.19	10.52	10.24
1962–63 . .	607,350	534	104,038	711,388	375,507	10.16	10.52	10.24
1963–64 . .	615,186	533	109,725	724,911	399,880	10.71	11.26	10.79
1964–65 . .	628.100	534	107,473	735,573	426,597	11.18	11.73	11.26
1965–66 . .	636,984	532	106,645	743,629	442,355	11.33	12.24	11.46

(a) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes allowances and supplementary assistance. (c) Includes supplementary assistance.

The sum paid in age and invalid pensions in 1965–66, including the amount paid to homes for the maintenance of pensioners and allowances to wives of invalid pensioners, represented an expenditure of $38.64 per head of population, compared with $37.92 in 1964–65.

Child endowment

A person who is resident in Australia and has the custody, care and control of one or more children under the age of sixteen years or of a student child over sixteen but under twenty-one years, or an approved institution of which children are inmates, is qualified to receive an endowment in respect of each such child. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months' residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Services is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia. Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas.

Rates of endowment. From 1 July 1941 the rate of endowment was 50c a week for each child under sixteen in excess of one in a family, and for each child under sixteen in an approved institution. The rate was increased to 75c a week in June 1945, and to $1.00 a week in November 1948. From June 1950, 50c a week became payable for the first or only child in a family. From January 1964 the rate was increased to $1.50 a week for the third and subsequent children under sixteen years in families and for each child in an institution, and that amount also became payable for full-time students between sixteen and twenty-one years. Full-time student children are those receiving full-time education at a school, college or university and who are not in employment or engaged in work on their own account.

Number of claims and endowed children—children under sixteen years. The number of families receiving child endowment at 30 June 1966 in respect of children under sixteen years was 1,610,490, an increase of 27,689 or 1.7 per cent during the year.

CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN UNDER 16 YEARS, STATES, TERRITORIES, ETC., 30 JUNE 1966

State, Territory, etc.	Family groups			Institutions		Total endowed children under 16 years
	Claims in force	Endowed children under 16 years		Number	Endowed child inmates under 16 years	
		Number	Average number per claim			
New South Wales .	587,291	1,270,262	2.16	134	5,365	1,275,627
Victoria . . .	443,753	982,651	2.21	122	5,027	987,678
Queensland . .	227,230	534,734	2.35	55	3,293	538,027
South Australia .	157,204	350,927	2.23	55	1,677	352,604
Western Australia .	120,973	282,827	2.34	64	3,707	286,534
Tasmania . .	53,813	126,870	2.36	20	401	127,271
Northern Territory .	6,835	15,612	2.28	38	5,817	21,429
Australian Capital Territory . .	13,177	29,582	2.25	..	..	29,582
Abroad . . .	214	468	2.19	..	..	468
Total . .	**1,610,490**	**3,593,933**	**2.23**	**488**	**25,287**	**3,619,220**

The following table shows, as at 30 June 1966, the number of claims in force and the number of endowed children under sixteen years in family groups, classified according to the number of endowed children in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and any other children in the custody, care and control of the claimant.

CHILD ENDOWMENT: ENDOWED CHILDREN UNDER 16 YEARS IN FAMILY GROUPS, TOTAL, 30 JUNE 1966

Number of endowed children under 16 years in family group	Claims in force	Endowed children under 16 years	Number of endowed children under 16 years in family group	Claims in force	Endowed children under 16 years
1 . .	554,610	554,610	9 . .	1,428	12,852
2 . .	518,910	1,037,820	10 . .	544	5,440
3 . .	301,329	903,987	11 . .	185	2,035
4 . .	142,804	571,216	12 . .	75	900
5 . .	55,473	277,365	13 . .	15	195
6 . .	22,319	133,914	14 or more	7	110
7 . .	8,839	61,873			
8 . .	3,952	31,616	**Total .**	**1,610,490**	**3,593,933**

Number of claims and endowed children—student children sixteen to twenty-one years

CHILD ENDOWMENT: CLAIMS AND ENDOWED STUDENT CHILDREN STATES, TERRITORIES, ETC., 30 JUNE 1966

State, Territory, etc.	Family groups			Institutions		Total endowed student children
	Claims in force	Endowed student children				
		Number	Average number per claim	Number	Endowed student child inmates	
New South Wales . .	42,210	45,534	1.08	12	33	45,567
Victoria	47,737	51,286	1.07	21	80	51,366
Queensland . . .	15,263	16,480	1.08	14	34	16,514
South Australia . . .	14,260	15,276	1.07	13	94	15,370
Western Australia . .	8,092	8,679	1.07	20	90	8,769
Tasmania	3,633	3,929	1.08	3	4	3,933
Northern Territory . .	265	299	1.13	5	14	313
Australian Capital Territory	1,421	1,570	1.10	..	..	1,570
Abroad	19	24	1.26	..	..	24
Total . . .	**132,900**	**143,077**	**1.08**	**88**	**349**	**143,426**

CHILD ENDOWMENT: ENDOWED STUDENT CHILDREN IN FAMILY GROUPS, TOTAL, 30 JUNE 1966

Number of endowed student children in family group	Claims in force	Endowed student children	Number of endowed student children in family group	Claims in force	Endowed student children
1 . .	123,147	123,147	5 or more .	1	5
2 . .	9,341	18,682			
3 . .	401	1,203			
4 . .	10	40	**Total .**	**132,900**	**143,077**

Liability and expenditure—children under sixteen years

CHILD ENDOWMENT: CHILDREN UNDER 16 YEARS LIABILITY AND EXPENDITURE, STATES, TERRITORIES, ETC., 1965-66

($'000)

State, Territory, etc.	Annual liability at 30 June 1966			Total payments to endowees and institutions during year
	Family groups	Institutions	Total	
New South Wales	58,840	418	59,258	57,372
Victoria	45,996	392	46,388	45,097
Queensland	25,902	257	26,159	25,296
South Australia	16,489	131	16,620	15,858
Western Australia	13,589	289	13,878	12,930
Tasmania	6,148	31	6,179	6,022
Northern Territory	751	454	1,205	1,032
Australian Capital Territory	1,392	..	1,392	1,382
Abroad	22	..	22	(a) 56
Total	**169,129**	**1,972**	**171,101**	**165,044**

(a) Includes expenditure for endowed student children; separate figures not available.

Liability and expenditure—student children sixteen to twenty-one years

CHILD ENDOWMENT: STUDENT CHILDREN, LIABILITY AND EXPENDITURE, STATES, TERRITORIES, ETC., 1965-66

($'000)

State, Territory, etc.	Annual liability at 30 June 1966			Total payments to endowees and institutions during year
	Family groups	Institutions	Total	
New South Wales	3,552	3	3,555	3,678
Victoria	4,000	6	4,006	4,138
Queensland	1,285	3	1,288	1,330
South Australia	1,192	7	1,199	1,130
Western Australia	677	7	684	695
Tasmania	307	..	307	297
Northern Territory	23	1	24	25
Australian Capital Territory	122	..	122	96
Abroad	2	..	2	(a)
Total	**11,160**	**27**	**11,187**	**11,389**

(a) Included in preceding table showing expenditure for endowed children under sixteen years; separate figures not available.

Child endowment summary, 1961–62 *to* 1965–66

CHILD ENDOWMENT: SUMMARY, AUSTRALIA, 1961-62 TO 1965-66

At 30 June—	Family group claims in force		Institutions	Endowed children	Annual liability for endowment (*b*)	Total payments (*b*)(*c*)
	For children under 16 years(*a*)	For student children(*a*)				
					$'000	$'000
1961–62 .	1,523,074	. .	479	3,420,134	138,247	132,755
1962–63 .	1,535,388	. .	497	3,457,620	139,876	135,421
1963–64 .	1,555,630	113,062	502	(*d*) 3,631,047	(*d*) 175,766	(*d*)(*e*) 168,758
1964–65 .	1,582,801	128,641	r487	(*d*) 3,710,616	(*d*) 180,065	(*d*) 172,830
1965–66 .	1,610,490	132,900	488	(*d*) 3,762,646	(*d*) 182,288	(*d*) 176,432

(*a*) Claims by families with children under sixteen and student children are shown in both columns. Information on the number of families having such dual claims is not available. (*b*) A number of endowments are paid every twelve weeks. During two years out of every three there are four such payments but every third year there are five. Figures for annual liability, therefore, reflect trends in expenditure on child endowment more accurately than do figures for payments. (*c*) Year ended 30 June. (*d*) Includes student children and reflects higher rates for third and subsequent children under sixteen years in families. (*e*) Expenditure for this year includes five twelve-weekly payments.

Commonwealth Rehabilitation Service

The Commonwealth Rehabilitation Service was set up to help persons who are unable to work because of physical handicap, or who have had to give up their employment because of sickness or injury. It helps disabled persons to reach their maximum physical fitness and to prepare for suitable employment. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable and there are reasonable prospects of his engaging in a suitable vocation within three years after the commencement of treatment or training.

The service is available to invalid and widow pensioners, persons receiving unemployment, sickness or special benefits, persons receiving tuberculosis allowances, and persons aged fourteen or fifteen who, without treatment and training, would be likely to qualify for an invalid pension on reaching the age of sixteen years. During treatment, payment of pension or benefit continues. When vocational training begins the pension or benefit is suspended and a rehabilitation allowance, together with a training allowance of $3.00 a week, is paid instead. With an invalid pensioner, or a sickness, unemployment or special beneficiary, the rehabilitation allowance is equivalent to and calculated in the same manner as an invalid pension. In the case of a widow pensioner the rate is the same as that of the widow's pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connection with treatment, training or attendance for an interview or for medical examination may also be paid. Necessary artificial replacements, surgical aids and appliances may be provided, free of charge, to a person receiving treatment and training or who needs them to assist him to engage in a suitable vocation after the discontinuance of his treatment and training. He may also be provided with books, equipment and tools of trade costing up to $80 in any period of twelve months. Where books, equipment and tools of trade provided to assist a person to engage in a suitable vocation are retained by him, he is liable to repay the cost but is not required to make repayment until after he has commenced employment. The repayment may be made by instalments. If the treatment or vocational training does not result in the trainee's being able to engage in employment, he receives the pension or benefit to which he is entitled. Disabled persons who cannot qualify for the free service may pay for rehabilitation themselves, or they may be sponsored by government or private organisations. Rehabilitation allowances, training allowances, living-away-from-home allowances and other allowances are not payable in these cases. Books, tools, etc., are available on a repayment basis.

Numbers dealt with by the service

COMMONWEALTH REHABILITATION SERVICE: AUSTRALIA, 1965–66

Type	Referred	Accepted	Completed training	Placed in employment	
				After training (*a*)	Without training
Invalid pensioners	9,827	358	86	86	150
Widow pensioners	7	2	. .	. .	1
Unemployment and sickness beneficiaries	13,923	921	182	182	569
Special beneficiaries	3	. .	. .	. .	. .
Recipients of tuberculosis allowance .	191	25	13	14	12
Persons aged 14–15 years . . .	149	62	27	22	23
Persons provided with rehabilitation on payment of the cost by another authority	93	66	1	3	55
Total	**24,193**	**1,434**	**309**	**307**	**810**

(*a*) Includes persons who had received training prior to 1 July 1965.

Of the 1,434 persons accepted during 1965–66, seventy per cent were under forty years of age. The average number receiving rehabilitation training at the end of each month during the year was 938. Total cost of this service during 1965–66 was $1,659,720.

Funeral benefits

A funeral benefit of up to $20.00 is payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a claimant who, but for his death, would have been granted an age or invalid pension, or of a person who at the time of his death was receiving, or was a claimant for, a tuberculosis allowance, if he would otherwise have been qualified to receive an age or invalid pension. Where the cost of the funeral has been met partly by payment from a contributory funeral benefit fund of an organisation other than a friendly society, funeral benefit is payable to the extent of the amount (not above $20.00) by which the cost of the funeral exceeded the amount paid from the fund. The maximum amount payable is increased to $40.00 where an age, invalid or widow pensioner is liable for the funeral expenses of a spouse, a child under sixteen years, or another age, invalid or widow pensioner.

FUNERAL BENEFITS GRANTED: STATES, TERRITORIES, ETC.
1961–62 TO 1965–66

(Number)

State, Territory, etc.	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales	15,228	16,365	16,680	17,709	17,015
Victoria	9,702	10,861	10,594	11,280	11,354
Queensland	6,000	5,952	6,176	6,542	6,596
South Australia	3,103	3,595	3,618	3,801	3,751
Western Australia	2,605	2,589	2,749	2,981	2,709
Tasmania	1,174	1,183	1,242	1,325	1,340
Northern Territory	11	5	14	18	8
Australian Capital Territory .	66	74	73	94	92
Abroad	. .	. .	2	5	2
Total	**37,889**	**40,624**	**41,148**	**43,755**	**42,867**

Total cost of funeral benefits granted during 1965–66 was $1,049,945.

Maternity allowances

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Commonwealth health scheme. They are not subject to a means test.

Subject to certain conditions, a maternity allowance is payable to a woman who gives birth to a child, either in Australia or on board a ship proceeding to Australia or from a port in Australia or an Australian Territory to another such port, and, on the date on which she lodges her claim, is residing in Australia or is in Australia and intends to remain permanently, provided she receives no benefit similar to a maternity allowance from the country from which she came. A woman who gives birth to a child during a temporary absence from Australia may also be eligible. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia permanently.

Rates of allowance. The allowance is $30.00 if the mother has no other children, $32.00 if she has one or two children under sixteen, and $35.00 if she has three or more other children under sixteen. The amount is increased by $10.00 for each additional child born at a birth. An advance payment of $20.00 may be made four weeks before the expected date of birth. The balance is payable immediately after the birth. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the child had developed for at least five and a half months.

Claims paid

MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE STATES AND TERRITORIES, ETC., 1965–66

(Number)

State, Territory, etc.	Single births			Multiple births							Total claims paid
				Twins			Triplets			Quad-ruplets	
	$30.00	$32.00	$35.00	$40.00	$42.00	$45.00	$50.00	$52.00	$55.00	$65.00	
New South Wales	28,618	34,767	13,502	270	376	202	2	..	2	..	77,739
Victoria	22,545	28,961	11,708	204	321	181	2	6	5	1	63,934
Queensland	11,532	14,130	7,481	96	143	102	2	1	1	..	33,488
South Australia	7,188	9,493	3,687	66	110	47	..	2	1	..	20,594
Western Australia	5,698	7,665	3,232	48	87	31	1	1	1	..	16,764
Tasmania	2,542	3,417	1,555	13	38	13	..	..	..	..	7,578
Northern Territory	596	645	476	3	5	6	..	..	..	..	1,731
Australian Capital Territory	744	1,023	383	5	15	7	..	1	..	..	2,178
Abroad	116	157	28	3	1	..	..	..	..	..	305
Total	79,579	100,258	42,052	708	1,096	589	7	11	10	1	224,311

MATERNITY ALLOWANCES: CLAIMS PAID, STATES, TERRITORIES, ETC. 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
					NUMBER					
1961–62	87,659	65,847	36,339	21,328	17,366	8,942	1,398	1,662	300	240,841
1962–63	82,700	66,021	35,659	21,357	17,152	8,560	1,516	1,789	310	235,064
1963–64	83,580	64,438	34,966	21,096	16,988	8,437	1,663	2,013	270	233,451
1964–65	80,592	64,424	33,963	20,820	16,667	7,821	1,661	2,015	176	228,139
1965–66	77,739	63,934	33,488	20,594	16,764	7,578	1,731	2,178	305	224,311
					AMOUNT ($'000)					
1961–62	2,884	2,114	1,178	690	559	289	45	48	10	7,817
1962–63	2,665	2,117	1,153	685	552	277	49	56	10	7,563
1963–64	2,649	2,065	1,128	675	546	272	54	60	9	7,457
1964–65	2,569	2,058	1,093	666	534	251	53	64	6	7,294
1965–66	2,475	2,040	1,075	657	536	243	55	70	8	7,159

Unemployment, sickness and special benefits

Unemployment and sickness benefits are paid to males over sixteen and under sixty-five years of age, and females over sixteen and under sixty years of age, who are unemployed or who are temporarily incapacitated for work and thereby suffer loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the *Repatriation Act* 1920–1966, or a tuberculosis allowance, is ineligible to receive a benefit.

To qualify for an unemployment benefit a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration with the local Commonwealth District Employment Office is necessary. To qualify for a sickness benefit, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income. A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances. In exceptional cases a married woman may qualify for unemployment benefit in her own right.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension or a service pension, and who, because of age, physical or mental disability or domestic circumstances, or for any other reason, is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, persons caring for invalid parents, also deserted wives and persons ineligible for age, invalid or widows' pensions because of lack of residence qualifications.

Special benefits are also aid to migrants who are in reception centres awaiting their first placement in employment in Australia. During this time they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

Rates of benefit. The maximum weekly rates of benefit payable and permissible income in respect of benefit periods which commenced on or after 1 March 1962 are as follows.

	Maximum weekly rate	Permissible weekly income
	$	$
Unmarried person under 18 years of age .	3.50	2.00
Unmarried person 18 to 20 years of age .	4.75	2.00
All others	8.25	4.00

An additional benefit of $6 a week may be paid for a dependent spouse and $1.50 a week for each dependent child under sixteen years of age if resident in Australia. Additional benefit, at the same rate as that for a dependent spouse, may be paid where a woman is keeping house for a claimant who has one or more children under sixteen years of age in his care. It may be granted only if no such benefit is payable for his wife, and the housekeeper is substantially dependent on him but not employed by him.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount shown in the relevant line of the final column in the preceding table. For unemployment benefit purposes the income of the spouse is also taken into account unless the claimant and his spouse are permanently separated. For sickness benefit purposes the income from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. 'Income' does not include child endowment or other payments for children, Commonwealth hospital and pharmaceutical benefits, a tuberculosis allowance, or an amount paid in reimbursement of medical, dental or similar expenses. There is no means test on property.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days for which unemployment or sickness benefit is not payable.

Benefits

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS STATES AND TERRITORIES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number admitted to benefit—									
Unemployment—									
Males	27,135	10,659	25,801	8,954	2,976	1,513	41	154	77,233
Females	13,630	5,174	9,545	4,639	2,907	1,229	40	100	37,264
Persons	40,765	15,833	35,346	13,593	5,883	2,742	81	254	114,497
Sickness—									
Males	19,444	11,551	9,301	4,676	4,351	1,509	169	193	51,194
Females	7,345	4,357	2,991	1,619	1,405	531	58	85	18,391
Persons	26,789	15,908	12,292	6,295	5,756	2,040	227	278	69,585
Special—									
Ordinary—									
Males	569	358	435	82	43	52	3	1	1,543
Females	452	1,548	280	82	35	72	..	2	2,471
Persons	1,021	1,906	715	164	78	124	3	3	4,014
Migrants—									
Persons	815	2,834	..	175	..	..	..	..	3,824
Total—									
Males(a)	*47,148*	*22,568*	*35,537*	*13,712*	*7,370*	*3,074*	*213*	*348*	*129,970*
Females(a)	*21,427*	*11,079*	*12,816*	*6,340*	*4,347*	*1,832*	*98*	*187*	*58,126*
Persons(b)	*69,390*	*36,481*	*48,353*	*20,227*	*11,717*	*4,906*	*311*	*535*	*191,920*
Persons on benefit at end of year—									
Unemployment—									
Males	4,843	2,386	2,817	1,478	389	224	2	15	12,154
Females	2,996	1,064	1,392	874	354	209	3	12	6,904
Persons	7,839	3,450	4,209	2,352	743	433	5	27	19,058
Sickness—									
Males	2,975	1,747	1,086	561	544	211	22	36	7,182
Females	1,280	731	442	254	224	87	3	17	3,038
Persons	4,255	2,478	1,528	815	768	298	25	53	10,220
Special—									
Ordinary—									
Males	227	115	95	30	24	24	1	..	516
Females	441	862	258	83	76	91	..	2	1,813
Persons	668	977	353	113	100	115	1	2	2,329
Migrants—									
Persons	23	179	..	20	..	..	..	..	222
Total—									
Males(a)	*8,045*	*4,248*	*3,998*	*2,069*	*957*	*459*	*25*	*51*	*19,852*
Females(a)	*4,717*	*2,657*	*2,092*	*1,211*	*654*	*387*	*6*	*31*	*11,755*
Persons(b)	*12,785*	*7,084*	*6,090*	*3,300*	*1,611*	*846*	*31*	*82*	*31,829*
Benefits paid—									
Unemployment . $'000	2,773	1,216	2,458	709	368	275	3	11	7,813
Sickness . $'000	2,665	1,667	961	512	457	174	20	27	6,483
Special(*b*) . $'000	368	551	174	62	47	57	..	1	1,261
Total benefits paid(b) . $'000	*5,806*	*3,434*	*3,593*	*1,283*	*872*	*506*	*23*	*39*	*15,557*

(*a*) Excludes migrants in reception centres. (*b*) Includes migrants in reception centres.

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS: SUMMARY AUSTRALIA, 1961-62 TO 1965-66

Year	Number admitted to benefit			Average number of persons on benefit at end of each week			Amount paid in benefits		
	Un-employment	Sickness	Special (*a*)	Un-employment	Sickness	Special (*a*)	Un-employment	Sickness	Special (*b*)
							$'000	$'000	$'000
1961–62 . .	278,936	63,586	7,466	52,950	9,286	2,867	25,274	5,330	1,206
1962–63 . .	200,982	66,402	8,227	39,706	10,514	2,647	21,301	6,750	1,263
1963–64 . .	139,500	69,503	7,602	25,925	10,994	2,684	13,458	6,901	1,266
1964–65 . .	88,512	68,637	6,719	13,742	10,457	2,567	6,807	6,498	1,235
1965–66 . .	114,497	69,585	7,838	14,927	10,044	2,507	7,813	6,483	1,261

(*a*) Includes migrants in reception centres. (*b*) Includes payments to migrants in reception centres.

Widows' pensions

Rates and conditions. Widows' pensions are payable according to the following classes. The rates shown have been in operation since October 1966.

Class 'A'. A widow who has the custody, care and control of one or more children under the age of sixteen years—$884 per annum ($17 a week). This includes the standard rate pension of $676 per annum ($13 a week) and a mother's allowance of $208 per annum ($4 a week). In addition, a flat rate allowance of $78 per annum ($1.50 a week) for one child and, subject to the means test, extra pension of $78 per annum ($1.50 a week) for each other child under sixteen years are payable. Payment may be made for a child over sixteen years until he reaches twenty-one years, if he is wholly or substantially dependent on the widow and is receiving full-time education at a school, college, or university.

Class 'B'. A widow who has no children under sixteen years of age or eligible full-time student children in her custody, care and control, and who is not less than fifty years of age or who, after having attained the age of forty-five years, ceased to receive a Class 'A' widows' pension because she no longer had the custody, care and control of a child—$611 per annum ($11.75 a week).

Class 'C'. A widow who is under fifty years of age and has no children under the age of sixteen years, or eligible full-time student children, in her custody, care and control, but is in necessitous circumstances within the twenty-six weeks after the death of her husband—$11.75 a week for not more than twenty-six weeks after the death of her husband. If the widow is pregnant this period may be extended until the child's birth. She may then become eligible for a Class 'A' widow's pension.

Widow pensioners may receive supplementary assistance of up to $104 per annum ($2 a week), subject to a means test, if they pay rent or pay for board and lodging or for lodging. From October 1958 to October 1965 the rate was $1 a week and was payable to widows, otherwise qualified, who were considered to be entirely dependent on the pension.

For classes 'A' and 'B' the term 'widow' includes a wife who has been deserted by her husband without just cause for a period of at least six months, a divorcee, a woman whose husband has been imprisoned for at least six months, and a woman whose husband is in a mental hospital. Certain dependent females also may qualify for 'A', 'B' or 'C' Class pensions.

The residence qualification is five years' continuous residence in Australia immediately prior to the date of lodgment of the claim, but this period may be reduced to one year if the widow and her husband were living permanently in Australia when he died. Certain absences are ignored.

A widow's pension is not payable to a woman receiving an age or invalid pension, a tuberculosis allowance, or a war widow's pension, or to a deserted wife or divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband.

Means test. Widows' pensions are subject to a means test on income and property. The pension payable depends on the claimant's *means as assessed.* These consist of her annual rate of income together with a property component equal to $2 for every complete $20 by which the value of her property is in excess of a stipulated sum. In the case of a Class 'B' widow, $400 of property is exempt. A Class 'A' widow has a basic exemption of $2,000 when the value of her property exceeds $4,500, but no property component is calculated where she has property of no more than $4,500 in value. A Class 'A' pension is not payable where a widow has property valued at $16,040 or more; no Class 'B' pension is payable where property is $11,720 or more. In each case the maximum rate of pension is reduced by the amount by which the widow's *means as assessed* exceed $520. There is no specific means test for the Class 'C' pension, which is paid only where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions. Supplementary assistance is reduced by the amount by which *means as assessed* exceed $52.

Pensions

WIDOWS' PENSIONS: STATES, TERRITORIES, ETC., 1965-66

State, Territory, etc.	Number admitted—all classes (*a*)	Pensions current at 30 June				Average weekly pension at 30 June (*b*)	Amount paid in pensions (*b*) (*c*)
		Class 'A'	Class 'B'	Class 'C'	All classes		
						$	$'000
New South Wales	5,439	11,759	14,314	52	26,125	14.75	18,753
Victoria	3,437	7,961	9,273	17	17,251	14.35	12,692
Queensland	2,138	5,300	5,489	16	10,805	14.57	7,987
South Australia	1,373	3,042	3,517	8	6,567	14.36	4,802
Western Australia	1,036	2,288	2,775	8	5,071	13.92	3,602
Tasmania	446	1,211	1,110	6	2,327	14.89	1,791
Northern Territory	48	99	103	..	202	15.09	159
Australian Capital Territory	55	136	122	..	258	15.44	165
Abroad	..	(*d*)	(*d*)	(*d*)	(*d*)	..	65
Total	**13,972**	**31,796**	**36,703**	**107**	**68,606**	**14.53**	**50,017**

(*a*) Excludes transfers from one class to another. (*b*) Includes supplementary assistance and allowances. (*c*) Includes payments to benevolent homes for maintenance of pensioners. (*d*) Included in the figures for the State or Territory in which the pensioner is normally domiciled.

WIDOWS' PENSIONS: SUMMARY, AUSTRALIA, 1961-62 TO 1965-66

Year	Number admitted—all classes (*a*)	Pensions current at 30 June				Average weekly pension at 30 June (*b*)	Amount paid in pensions (*b*) (*c*)
		Class 'A'	Class 'B'	Class 'C'	All classes		
						$	$'000
1961–62	12,960	24,584	32,157	95	56,836	10.44	30,189
1962–63	12,537	25,261	33,112	104	58,477	10.45	31,353
1963–64	14,207	27,371	34,659	94	62,124	13.57	41,569
1964–65	14,243	29,713	35,574	111	65,398	14.09	47,044
1965–66	13,972	31,796	36,703	107	68,606	14.53	50,017

(*a*) Excludes transfers from one class to another. (*b*) Includes supplementary assistance and allowances. (*c*) Includes payments to benevolent homes for maintenance of pensioners.

Reciprocal social services agreements with other countries

New Zealand. An agreement between the Governments of Australia and New Zealand for reciprocity in social services came into operation on 3 September 1943 and was amended from 1 July 1949. The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment, and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

Britain. A reciprocal agreement on social services between Britain and Australia came into operation on 7 January 1954. Amendments became effective from 1 April 1958 and 1 October 1962. Under the current agreement residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies.

Australians going to Britain for permanent residence are treated in Britain as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

Commonwealth assistance to aged persons homes and homes for disabled persons employed in sheltered workshops

The Aged Persons Homes Act 1954–1957. This Act is designed to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under the Act an organisation must be:

(*a*) carried on otherwise than for purposes of profit or gain to the individual members; and
(*b*) a religious organisation, an organisation the principal objects or purposes of which are charitable or benevolent, an organisation of former members of the defence forces established in every State or a State branch of such an organisation, or an organisation approved by the Governor-General for the purposes of the Act.

An organisation conducted or controlled by, or by persons appointed by, the Government of the Commonwealth or of a State or a local governing body established under the law of a State, is not eligible for assistance under the Act.

The Director-General of Social Services may make a grant of money to an organisation as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a basis of $2 for each $1 raised by the organisation ($1 for each $1 from 1954 to 1957), not counting money which the organisation receives from a governmental body or borrowed. Before a grant is made the Director-General must be satisfied that the sum of the money expended and the money at present available for expenditure by the organisation towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home.

The following table gives information regarding grants approved during 1965–66. The amounts granted include new grants approved in 1965–66 together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED PERSONS HOMES: GRANTS APPROVED, AMOUNTS GRANTED, AND BEDS PROVIDED, STATES AND TERRITORIES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
Grants approved . no.	42	29	16	44	14	3	. .	1	149
Amounts granted . $'000	2,682	1,946	1,081	2,400	1,372	80	1	13	9,576
Beds provided . no.	774	553	318	719	414	25	. .	4	2,807

The following table gives information regarding grants approved for each of the years 1961–62 to 1965–66. The amounts granted in each year include new grants approved in that year together with adjustments made during the year in respect of grants originally approved in earlier years. In previous Year Books these subsequent adjustments were included in the amount shown for the respective year in which the original grant was approved.

AGED PERSONS HOMES: GRANTS APPROVED, AMOUNTS GRANTED, AND BEDS PROVIDED, AUSTRALIA 1961-62 TO 1965-66

Year	Grants approved	Amounts granted	Beds provided
	no.	$'000	no.
1961–62	130	r6,180	2,260
1962–63	155	r8,574	2,939
1963–64	134	r7,281	2,466
1964–65	r152	r6,684	2,083
1965–66	149	9,576	2,807

Since the commencement of the Act in December 1954, 1,333 grants amounting to $58,419,000 have been approved, and accommodation has been provided for 23,218 aged persons.

The Disabled Persons Accommodation Act 1963. This Act came into operation on 25 November 1963, and provides that grants may be made to eligible organisations towards the capital cost of approved buildings which will provide residential accommodation for disabled persons engaged, or likely to be engaged, in paid employment in a sheltered workshop. The Act covers both the erection of buildings to be used for accommodation and the purchase of existing premises for conversion into accommodation. In both cases the cost of the necessary land may be included. Eligibility of organisations for grants is on the same basis as for the Aged Persons Homes Act. For the purposes of the Act, a disabled person is a person who is qualified by age (sixteen years or over) and on medical grounds for an invalid pension under the Social Services Act. A sheltered workshop is a factory or workshop, or part thereof, in which all or a substantial number of employees are disabled persons who receive payment for their work.

Three grants amounting to $83,894 were approved during 1965–66 in respect of projects in New South Wales, Western Australia and Tasmania. With the grant to an organisation in south Australia in 1963–64, the total grants approved to 30 June 1966 amounted to $119,884.

Telephone rental concessions

Effective from 1 October 1964 an amendment to the Telephone Regulations of the Post and Telegraph Act provides that a telephone service for age, invalid and widow pensioners and blind people is available at an annual rental equal to two-thirds of the amount otherwise payable. The Department of Social Services re-imburses the Postmaster General's Department for the cost of the scheme including administrative costs. Expenditure during 1964–65 and 1965–66 was $552,360 and $1,579,065 respectively, plus $36,062 and $64,520 respectively for administration.

Selected non-government organisations

National Safety Council of Australia

The National Safety Council of Australia was founded in Victoria in 1927. In 1959 it was reorganised, and new Articles of Association were adopted in 1961, placing it on a more truly federal basis and reflecting the expanded character of the Council in the thirty-nine years since its formation. The objects of the Council are to devise and encourage the adoption of safety measures of all kinds, to promote discussion of all matters relating to safety measures, to conduct an educational campaign among the people of Australia to stimulate the adoption and observance of safety measures, and to consider, initiate and support improvements in the laws of the Commonwealth of Australia, the States and local governing bodies, calculated to prevent accidents.

The Council is now registered in Canberra, with Divisions established in all States. It is managed by a Federal Council responsible for those objectives which are of a national character. Each State Division controls its own affairs which are of State or local character.

Life saving

There are two life saving organisations in Australia, the Royal Life Saving Society—Australia and the Surf Life Saving Association of Australia. The objects of these organisations are the prevention of death from drowning and other forms of asphyxiation; the education of the general public in methods of life saving and resuscitation of the apparently drowned or asphyxiated; technical education in water safety; the encouragement of swimming and life saving in schools and other organisations; the encouragement of all aspects of swimming and aquatics which would assist in saving lives; and the initiation of research within the field of water safety and life saving.

The Royal Life Saving Society operates at lakes, rivers, and bay and barbour beaches, and gives instruction to school pupils and members of other bodies throughout Australia except on surf beaches.

The Surf Life Saving Association of Australia controls all life saving activities on the ocean beaches throughout Australia. In all, over 230 clubs are affiliated, comprising a membership of over 24,000. Volunteer patrols operate every week-end, and in recent years over 5,000 rescues have been recorded during each surfing season. The total number of recorded rescues during the past fifty-nine years is 150,364.

Royal Humane Society

The Royal Humane Society of Australasia has as its main object the granting of awards to all who with bravery, skill and perseverance risk their own lives in saving or attempting to save those of their fellow creatures. The classes of awards are (*a*) Gold Medal, (*b*) Silver Medal, (*c*) Bronze Medal, and (*d*) Certificate of Merit. The Clarke Medal is awarded for the outstanding case of the year, and the Rupert Wilks Trophy is awarded for the most outstanding bravery by a child under thirteen years of age.

The Order of St John

The Priory in Australia of the Most Venerable Order of the Hospital of St John of Jerusalem is the governing body of the various activities of the Order, which comprises the St John Ambulance Association, the St John Ambulance Brigade and the Hospitallers' Clubs in all States and Commonwealth Territories.

Members of the St John Ambulance Association teach first aid, home nursing, hygiene, and child welfare, and members of the St. John Ambulance Brigade provide first aid at public functions. The Hospitallers' Clubs in each State undertake the collection of funds for the St. John Ophthalmic Hospital in Jerusalem and other duties which tend to bring together all persons interested in the work of the order. The Order of St John maintains ambulance transport services in some States, acts as an auxiliary to such services in other States, and provides technical reserves for the medical services of the Crown.

CHAPTER 15

PUBLIC JUSTICE

Statistics of public justice are influenced by a number of factors which affect comparability from State to State and from year to year, e.g.:

(*a*) Differences in the jurisdiction of courts;

(*b*) Changes in the law in particular States and differences in the laws between States;

(*c*) Differences in the methods of compiling the figures (e.g. in respect of persons convicted for more than one offence);

(*d*) The attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences;

(*e*) The strength and distribution of the police force;

(*f*) The proportion of various types of crimes reported and solved.

The Australian legal system

Development of the system

The two major factors in the development of the Australian legal system have been its British origin and the Commonwealth Constitution of 1900. When the various parts of Australia were first settled by British colonists, the common law and statutes of England were brought with them by the settlers. When local law-making bodies were established, the law so brought in was gradually modified and augmented by local legislation, but the Imperial Parliament in London also continued to legislate (to a lesser and lesser extent) in respect of Australia. The Commonwealth Constitution of 1900, which is itself an Imperial Act, limited the legislative power of State Parliaments in some respects and created a federal legislature. Since the *Statute of Westminster Adoption Act* 1942, the Imperial Parliament can legislate for Australia only at Australia's request. The sources of Australian law of today are, therefore, found in Commonwealth and State legislation, in some Imperial legislation and in the common law. Three of the States (Queensland, Western Australia and Tasmania) have Criminal Codes, and separate consolidations of the statutes of the Commonwealth and of all States except Western Australia (which has adopted a system of reprinting of individual statutes at intervals) have been brought out from time to time.

There are few constitutional or other legislative guarantees of individual rights and liberties in Australia. These rights are nevertheless protected, because a basic feature of the Australian system is the 'rule of law': no act, official or unofficial, however bona fide and apparently reasonable, which infringes the liberty or rights of an individual is justifiable unless it is authorised by law, and for any such unlawful act, by whatever authority commanded, the official or other person is personally liable in an action in the ordinary courts. In the case of subordinate legislation, and even in the case of Commonwealth or State Acts, the validity of the law itself may be challenged in the courts. The remedy for the protection of the personal liberty of the individual is the writ of habeas corpus, which requires the person named therein to be produced in the court.

Australian law adheres to the principle that judicial control must in general be exercised by ordinary courts. There is no integrated system of administrative tribunals, but there is a great variety of such tribunals of various descriptions. The ordinary courts exercise supervision over administrative tribunals either by way of statutory appeal or by the use of prerogative writs of mandamus, prohibition, or *certiorari*, by which the administrative tribunals can be enjoined to perform a duty or to abstain from excess of jurisdiction, or can have their decisions set aside.

Independence of the judiciary is an essential part of the Australian legal system. Security of tenure of superior court judges is guaranteed, mostly by the Constitutions of the Commonwealth and the States, and they can be removed from office only by resolution of both Houses of Parliament of the Commonwealth or the States, as the case may be, for proven misbehaviour or incapacity. Their independence is further secured by relatively high salaries which, in the case of High Court judges, cannot be reduced during their tenure of office, and liberal (mostly non-contributory) pensions for the judges or their widows.

Civil judgments given in the courts of any part of Australia can be enforced in any other part of Australia under the *Service and Execution of Process Act* 1901–1963. Since 1 January 1964 this applies also to fines imposed by courts of summary jurisdiction.

State and Territory courts

Civil jurisdiction. Lower civil courts (i.e. Magistrates' Courts, Courts of Petty Sessions, Local Courts, Small Debts Courts, Courts of Request, and Courts of General Sessions) are usually constituted or presided over by a stipendiary or special magistrate or a commissioner. In some limited instances justices of the peace may exercise the jurisdiction of the court. Local Courts are sometimes constituted by a Judge. The powers of the magistrates in the various States and Territories are set out on pages 517–18. In most cases, unless the amount involved is very small, appeal may be made to a higher court against a magistrate's decision. In any case the Supreme Court has a supervisory power, by means of prerogative writs, to examine whether a lower court has properly exercised its jurisdiction. In the higher courts (i.e. District Courts, County Courts and the Supreme Courts) actions are usually tried by a single judge, sitting with or without a jury, from whose judgment appeal lies to the bench of the Supreme Court. In certain cases the appeal can be carried to the High Court of Australia. Appeals to the Privy Council are referred to on page 517.

Criminal jurisdiction. Criminal courts are of two kinds, namely, courts of summary jurisdiction and higher courts. Courts of summary jurisdiction, usually called Courts of Petty Sessions, may deal summarily with minor offences; higher courts, known as Courts of Sessions, Quarter Sessions or General Sessions (not to be confused with the lower court of civil jurisdiction of that name) and the Supreme Court, hear indictable offences. A court of summary jurisdiction consists of a stipendiary or police magistrate, or two or more justices of the peace; a higher court consists of a judge or chairman, sitting with a jury. The jury finds as to the facts of the case, and the judge determines the applicable law and, within the limits of the law, the punishment of the convicted person.

In the case of other than minor offences a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a prima facie case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. A magistrate or justice of the peace has power to release on bail. There is an appeal to a higher court from the decision of a court of summary jurisdiction hearing a minor offence, and an appeal from a higher court to the full bench of the Supreme Court, or Court of Criminal Appeal. A further appeal may, with leave, be brought to the High Court of Australia.

Federal courts

The judicial power of the Commonwealth is vested in the High Court of Australia (the Federal Supreme Court), in the Federal courts created by Parliament (the Federal Court of Bankruptcy and the Commonwealth Industrial Court), and in the State courts invested by Parliament with Federal jurisdiction, both civil and criminal. The nature and extent of the judicial power of the Commonwealth are set out in Chapter III. (§§ 71–80) of the Commonwealth Constitution (*see* pages 15–16 of this Year Book). Particulars concerning the Federal Court of Bankruptcy are given on pages 534–6 of this chapter, and information regarding the Commonwealth Industrial Court, which was established under the *Conciliation and Arbitration Act* 1904–1966, is included in the chapter Labour, Wages and Prices (page 313).

High Court of Australia

The High Court of Australia consists of a Chief Justice and six other Justices. Its principal seat is in Melbourne, but sittings are held in every State capital as occasion requires. The High Court has both original and appellate jurisdiction. Its original jurisdiction is usually exercised by a single Justice, appellate jurisdiction by at least three Justices.

The Constitution itself confers original jurisdiction on the High Court in all matters (i) arising under any treaty, (ii) affecting consuls or other representatives of other countries, (iii) in which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party, (iv) between States, or between residents of different States, or between a State and a resident of another State, (v) in which a writ of mandamus or prohibition or an injunction is sought against an officer of the Commonwealth. In addition, Parliament may, under the Constitution, confer additional original jurisdiction on the High Court in certain classes of matters, and has in fact conferred original jurisdiction on the High Court in all matters arising under the Constitution or involving its interpretation and in trials of indictable offences against the laws of the Commonwealth. In matters (i) and (v) and in suits between the Commonwealth and a State or between States the jurisdiction of the High Court is exclusive of that of the State Courts, and in matters (other than trials of indictable offences) involving any question as to the limits *inter se* of the constitutional powers of the Commonwealth and those of the States the jurisdiction of the High Court is exclusive of that of the Supreme Courts of the States.

Under the Constitution the High Court has jurisdiction, with such exceptions and subject to such regulations as the Parliament permits, to hear and determine appeals from all judgments, decrees, orders, and sentences of (i) any Justice or Justices exercising the original jurisdiction of the High Court, (ii) any other Federal Court or court exercising Federal jurisdiction and (iii) from the Supreme Court or other court of any State from which appeal lay to Privy Council at the establishment of the Commonwealth. In respect of (iii) the Parliament has prescribed that, generally, appeal can be brought only by special leave of the High Court. However, in the case of judgments affecting the status of any person under the laws relating to aliens, marriage, bankruptcy or insolvency, or in respect of any sum or matter at issue, or involving any claim, demand or question regarding any property or civil right, of the value of $3,000, appeal may be brought as of right from final judgments, and by leave of the High Court or the Supreme Court from interlocutory judgments.

By Acts of Parliament and by subordinate legislation the High Court has also been given appellate jurisdiction in respect of the courts of the Territories under the control of the Commonwealth. Provision is also made in various enactments for appeal to the High Court on points of law from administrative determinations, such as decisions of the Commissioner of Taxation, Taxation Boards of Review, the Commissioner of Patents, or the Registrar of Trade Marks. Such proceedings, although called appeals, are in reality proceedings in the original jurisdiction of the High Court.

Transactions of the High Court are shown on page 527.

Appeal to the Privy Council

There is an appeal, by special leave of the Privy Council, from the High Court to the Privy Council. In certain important types of constitutional disputes, involving questions of the powers of the Commonwealth *vis-à-vis* the States, a certificate of the High Court in effect granting leave to appeal is necessary. There is also an appeal from the State Supreme Courts direct to the Privy Council.

Lower (magistrates') courts

Powers of magistrates

New South Wales. The powers of the magistrates with regard to offences punishable summarily depend in each case on the statute which creates the offence and gives them jurisdiction. A magistrate may, with the consent of the accused, deal summarily with certain indictable offences under the Commonwealth Crimes Act and offences involving $500 or less under the State Crimes Act; offences under the Commonwealth Act and certain offences under the State Act may be disposed of summarily without such consent if the amount involved does not exceed $100. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to twelve months. Imprisonment in default of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of liquidated debts, and damages whether liquidated or unliquidated, the amount is limited to $300 before a court constituted by a stipendiary magistrate. Where the amount claimed exceeds $100 the Court must transfer the action to the District Court when the defendant gives notice that he objects to the action being heard and determined by a Court of Petty Sessions. Magistrates have power to entertain claims of up to $1,000 under the Money Lenders and Infants Loans Act, 1941–1961. The amount in actions of debt or damages before one or more justices of the peace ranges up to $60 in certain cases.

Victoria. The civil jurisdiction of magistrates is restricted as follows: (*a*) ordinary debts, to $200; (*b*) any action in tort or contract, with the exception of a few torts such as breach of promise or illegal arrest (on which magistrates have no power to adjudicate), to $600; and (*c*) any action in tort arising out of any accident in which a vehicle is involved, to $1,000. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences sentences of up to two years imprisonment may be imposed. The proportion of long sentences is, however, comparatively small.

Queensland. Generally speaking, the maximum term of imprisonment which justices can impose is six months, but in certain exceptional cases, such as offences against sections 233, 344 and 445 of the Criminal Code (betting houses, aggravated assaults, and unlawfully using animals), sentences of twelve months may be imposed. There is provision for applying cumulative sentences.

South Australia. The power of special magistrates to impose fines and imprisonment is defined by the special Act creating the offence and conferring jurisdiction. In the case of minor indictable offences which are tried summarily, a maximum penalty of $200 fine or two years imprisonment is fixed by the Justices Act, 1921–1965. Magistrates also have power to hear certain civil actions in which the amount claimed is less than $2,500.

Western Australia. The powers of magistrates and justices with regard to offences which are tried summarily are governed by the Act creating the offence and giving them jurisdiction. Imprisonment in default of payment of a fine is regulated by a scale limiting the period according to the amount of the fine but not to exceed six months. The civil jurisdiction of Local Courts is restricted in general to $1,000. By consent of the parties, any action that might be brought in the Supreme Court may be dealt with in a Local Court. Justices may act in the case of illness or absence of the magistrate. Magistrates are coroners, and justices may be appointed as acting coroners. Magistrates have appellate jurisdiction under some statutes and in country districts act as Chairmen of the Session Courts. They may be appointed as Commissioners of the Supreme Court. On the goldfields the magistrate is also the warden.

Tasmania. Magistrates are empowered to hear and determine in Courts of Petty Sessions all offences when an enactment expressly or by implication provides that the matter is to be determined summarily, or by or before justices, or that any offence is to be punishable upon summary conviction. In 1963, by an amendment to the *Justices Act* 1959, the categories of crimes triable summarily were extended to include crimes of a less serious nature. In the case of certain crimes the defendant has the option of electing summary trial or trial on indictment in the Supreme Court. However, the choice of election applies only where the property concerned exceeds the value of $20 but does not exceed $400. In the case of a charge of forgery or uttering, a right of election exists provided the complaint is in respect of a cheque for not more than $400. In the case of a charge of breaking into a building, other than a dwelling house, a defendant may elect to be tried summarily under certain conditions. No general limit is fixed in respect of sentences, the statute creating the offence almost invariably laying down the penalty. Where this is not the case, the *Contravention of Statutes Act* 1889 provides that a fine of $100 may be imposed. Sentences of imprisonment which justices may impose vary with the nature of the offence, with a maximum of two years. The aggregate of terms of cumulative sentences may not exceed two years. The civil jurisdiction of magistrates is divided into two categories. A Commissioner of the Court of Requests, provided he is a legal practitioner, may hear actions for the recovery of debts up to $1,500 or damages up to $1,000. As Commissioners are invariably police magistrates, this jurisdiction is State-wide. Courts of General Sessions, constituted by at least two justices, exercise similar powers, but the jurisdiction cannot exceed $100.

Northern Territory. Stipendiary and special magistrates constituting courts of summary jurisdiction try offences punishable summarily. The punishment that may be imposed depends on the law creating the offence. Where there is no magistrate available, the offence may be tried by two or more justices of the peace or, if all parties consent, by one justice. Proceedings for committal on indictable offences may be heard by either a magistrate or a justice of the peace. Certain indictable offences under the Territory law may be tried summarily by a magistrate or two justices of the peace, who may impose a fine of up to $200 or imprisonment for up to two years. A stipendiary magistrate constituting a local court has a civil jurisdiction to hear and determine claims for not more than $2,000. A local court constituted by two justices of the peace (every special magistrate is also a justice of the peace) has a civil jurisdiction to hear claims up to $100.

Australian Capital Territory. Stipendiary and special magistrates have general jurisdiction to try offences punishable summarily and also where a person is made liable to a penalty or punishment and no other provision is made for trial. The punishment depends on the law which creates the offence. In addition to jurisdiction (possessed by stipendiary and special magistrates throughout Australia) to try summarily with the consent of the defendant offences indictable under the *Crimes Act* 1914–1966 (in which case the magistrate cannot impose a fine exceeding $200 or imprisonment exceeding one year), under Territory law certain indictable offences may also be tried summarily by a magistrate, who may impose a fine not exceeding $100 or imprisonment for up to one year. Magistrates also hear proceedings for committal on indictable offences. In civil proceedings, magistrates try actions for amounts up to $400. Justices of the peace have no judicial functions.

First offenders

In all States and Territories statutes are in force for dealing with first offenders. Provisions are incorporated in the various Acts whereby courts may extend leniency to the offender by means such as: (i) dismissal of the charge without proceeding to a conviction; (ii) freeing the offender or suspending sentence with the requirement of a recognisance for good behaviour for a specified period; and (iii) by placing the offender under the supervision of a probation officer for a specified period.

Children's courts

Special provisions exist in all States and Territories for dealing with juvenile offenders in special courts. Particulars of the relevant legislation and the constitution and powers of these courts are given in Year Book No. 49, pages 665–6.

Proceedings at lower (magistrates') courts

Particulars of the differences in the jurisdiction of lower courts in the various States are given under Powers of Magistrates (pages 517–8). The proceedings of these courts are summarised in this paragraph. The statistics in the following tables are influenced by the factors affecting comparability listed at the beginning of this chapter (page 515).

Criminal proceedings—total cases. The total numbers of cases dealt with at magistrates' courts in each State and Territory for the years 1961 to 1965 are shown in the following table.

CASES AT MAGISTRATES' COURTS: OFFENCES CHARGED, STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales(*a*)	345,730	322,848	323,501	341,351	341,171
Victoria(*a*)	259,268	270,275	(*b*)290,332	r(*b*)303,096	(*b*)323,644
Queensland(*a*)(*c*)	79,448	79,772	87,737	97,878	113,568
South Australia(*a*)(*c*)	59,534	61,276	68,707	64,799	71,842
Western Australia(*a*)(*d*)	48,220	52,764	54,907	53,705	59,753
Tasmania(*a*)	27,227	30,415	34,728	31,702	39,944
Northern Territory(*e*)	3,091	4,350	5,886	6,581	7,519
Australian Capital Territory	3,305	4,795	6,435	(*a*) 7,797	(*a*) 7,437
Australia	**825,823**	**826,495**	**872,233**	**r906,909**	**964,878**

(*a*) Excludes minor traffic offences settled without court appearance. This practice commenced in Australian Capital Territory from 14 September 1964. (*b*) Excludes prosecutions by authorities other than Police Department. (*c*) Year ended 30 June. (*d*) Excludes Aborigines. (*e*) Excludes courts at Tennant Creek and Katherine.

Differences in the figures in the preceding table between States, and within a State over a period of time, are influenced by the large number of traffic offences and the arrangements which have been introduced at various times for dealing with them. Provision exists in the States and the Australian Capital Territory for settlement of parking and minor traffic offences by payment of fines without court appearance.

MINOR TRAFFIC OFFENCES SETTLED WITHOUT COURT APPEARANCES STATES AND A.C.T., 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales	370,688	443,689	389,395	381,058	400,459
Victoria	113,874	132,144	170,590	181,479	(*a*)229,478
Queensland(*b*)	58,977	75,322	79,237	r101,276	115,446
South Australia(*b*)	156,067	191,592	183,684	198,943	121,535
Western Australia	44,392	42,582	43,970	49,488	51,167
Tasmania	36,745	33,217	34,394	38,555	40,917
Australian Capital Territory	..	..	..	(*c*) 1,419	5,145
Total	**780,743**	**918,546**	**901,270**	**r952,218**	**964,147**

(*a*) Includes 18,380 fines paid direct to the Police Department. Legislation to enable this came into force on 9 August 1965. (*b*) Year ended 30 June. (*c*) From 14 September 1964.

Criminal proceedings—cases in which convictions were made. Of the cases dealt with in magistrates' courts, the following tables show the number in which convictions were made.

CASES AT MAGISTRATES' COURTS IN WHICH CONVICTIONS WERE MADE BY CLASS OF OFFENCE: STATES AND TERRITORIES, 1965

Class of offence	N.S.W.	Vic. (*a*)	Qld (*b*)(*c*)	S.A. (*b*)	W.A. (*d*)	Tas.	N.T. (*e*)	A.C.T.	Aust.
Against the person . .	3,794	3,150	811	504	535	435	199	69	9,497
Against property . .	29,510	20,476	5,349	4,300	6,379	2,934	342	513	69,803
Forgery and offences against the currency . . .	1,281	159	. .	9	11	301	86	45	1,892
Against good order . .	104,132	32,367	31,974	9,626	6,997	1,610	4,731	160	191,597
Other	165,336	240,390	63,821	48,173	42,756	25,976	1,668	5,500	593,620
Total	**304,053**	**296,542**	**101,955**	**62,612**	**56,678**	**31,256**	**7,026**	**6,287**	**866,409**

(*a*) Excludes prosecutions by authorities other than Police Department. (*b*) Year ended 30 June. (*c*) A person convicted on several counts at the one hearing is included only once. (*d*) Excludes Aborigines. (*e*) Excludes courts at Tennant Creek and Katherine.

CASES AT MAGISTRATES' COURTS IN WHICH CONVICTIONS WERE MADE STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales(*a*)	314,307	292,484	287,053	301,922	304,053
Victoria(*a*)	235,581	246,017	(*b*)266,088	(*b*)277,877	(*b*)296,542
Queensland(*a*)(*c*)(*d*)	71,642	71,702	78,864	88,442	101,955
South Australia(*a*)(*c*)	52,155	53,531	57,524	55,806	62,612
Western Australia(*a*)(*e*) . .	45,773	49,691	51,712	50,966	56,678
Tasmania(*a*)	23,212	26,211	29,945	26,686	31,256
Northern Territory(*f*). . .	2,812	3,968	5,503	6,166	7,026
Australian Capital Territory .	2,613	4,089	6,026	(*a*) 5,815	(*a*) 6,287
Australia	**748,095**	**747,693**	**782,715**	**813,680**	**866,409**

(*a*) Excludes minor traffic offences settled without court appearance. This practice commenced in Australian Capital Territory from 14 September 1964. (*b*) Excludes prosecutions by authorities other than Police Department. (*c*) Year ended 30 June. (*d*) A person convicted on several counts at the one hearing is included only once. (*e*) Excludes Aborigines. (*f*) Excludes courts at Tennant Creek and Katherine.

Criminal proceedings—cases in which convictions were made for drunkenness. The numbers of cases in which convictions were recorded during each of the years 1961 to 1965 are given in the following table.

DRUNKENNESS: CASES IN WHICH CONVICTIONS WERE MADE, STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales . . .	67,809	68,546	65,630	61,537	63,143
Victoria	27,212	28,529	(*a*) 27,606	(*a*) 24,048	(*a*) 23,790
Queensland(*b*)	26,136	26,293	28,580	30,924	29,224
South Australia(*b*) . . .	5,438	6,178	7,485	6,952	7,110
Western Australia(*c*) . . .	5,333	5,320	4,877	4,529	4,653
Tasmania	534	575	562	420	491
Northern Territory(*d*). . .	1,037	1,388	1,730	3,021	3,938
Australian Capital Territory .	307	252	237	331	401
Australia	**133,806**	**137,081**	**136,707**	**131,762**	**132,750**

(*a*) Excludes prosecutions by authorities other than Police Department. (*b*) Year ended 30 June. (*c*) Excludes Aborigines. (*d*) Excludes courts at Tennant Creek and Katherine.

Civil proceedings. Civil proceedings in the lower courts refer to those in the Small Debts Courts in New South Wales, Courts of Petty Sessions in Victoria, Magistrates' Courts in Queensland, Local Courts in South Australia and Western Australia, Courts of Requests in Tasmania, Local Courts in the Northern Territory, and the Court of Petty Sessions in the Australian Capital Territory. Statistics of civil proceedings in the lower courts are given on page 527.

Higher (judges') courts

Higher courts are presided over by a judge, sometimes with a jury (*see* page 516). Jurisdiction of the higher courts, which include District, County and Supreme Courts, includes appeals from the lower courts, cases of serious crime committed from lower courts, and civil cases involving common law, commercial causes, equity, etc. Under powers vested by the Commonwealth under the *Matrimonial Causes Act* 1959–1966 and the *Bankruptcy Act* 1924–1965, separate courts within the jurisdiction of the Supreme Courts of the various States and Territories deal exclusively with matrimonial cases and bankruptcy cases respectively.

Proceedings at higher courts comprise criminal, civil, divorce, and bankruptcy preceedings. Separate details of each are given on pages 526–36.

An account of the methods adopted in each jurisdiction in connection with habitual offenders is given in Year Book No. 49, pages 668–9.

Capital punishment

There were seven executions in Australia during the period 1955 to 1966. Three took place in South Australia (in 1956, 1958 and 1964) and four in Western Australia (one in 1960 and 1961. two in 1964). In each case the offence was murder.

Under '*The Criminal Code Amendment Act of* 1922' capital punishment was abolished in Queensland, and in New South Wales the Crimes Act was amended in 1955, abolishing capital punishment for all offences except treason and piracy with violence. In the Australian Capital Territory the *Child Welfare Ordinance* 1957–1962 provides that no death sentence is to be pronounced or recorded against a person under the age of 18 years, and sub-section (2) of section 389 of the Tasmanian *Criminal Code Act* 1924 as amended contains a similar provision.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which would now be dealt with in a court of summary jurisdiction. The present tendency is to restrict death sentences to persons convicted of murder. Although rape is a capital offence in some States, the penalty of death has not been imposed in recent years on persons convicted of it. The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; from 1931 to 1940, 1; from 1941 to 1950, 0.5; and from 1951 to 1960, 0.7.

Serious crime

Selected crime reported or becoming known to police

The tables on pages 522–4 show some details of certain categories of offences reported or becoming known to police. This series, which commenced in 1964, is derived from police records and is based, as far as possible, on definitions and procedural arrangements uniformly determined for all States. The following explanations are necessary in order to interpret the figures in this series.

Number of offences reported or becoming known. All incidents reported or becoming known to the police which are found to constitute offences within the scope of the crimes covered are included. Offences are shown as 'reported or becoming known' in the year during which it has been established that the incident constitutes a crime, not necessarily in the period when the incident occurred. However, the incident is included when the police are satisfied that a crime has been committed, even though it may be established in subsequent proceedings that no crime or a crime of a different nature was committed. As far as possible, the offences are recorded in respect of the State in which the incident occurred, regardless of which police force undertakes investigations or prosecutions, or where an arrest is made. In the case of homicide, assault, robbery, and rape, one offence is counted in respect of each victim, regardless of the number of offenders involved. In the case of breaking and entering, and fraud, etc., one offence is counted for each act or series of directly related acts occurring at the same time and place and under the same circumstances. Each motor vehicle stolen is counted as a separate offence.

Number of offences cleared. An offence of the type included in this series is counted as 'cleared' when an information (charge, arrest or summons to appear) has been laid against at least one person involved. However, an offence may also be counted as 'cleared' without an information being laid. This may occur when the offender has received an official caution or has died, has committed suicide, has been committed to a mental institution, or is in another jurisdiction from which extradition is not desired or available, or is serving a sentence; or if there are other obstacles to prosecution, such as diplomatic immunity or that the complainant refuses to prosecute. A clearance is always shown against the classification under which the offence was 'reported', regardless of the nature of the charge laid or changes in the description of an offence due to later information. The entries are made in respect of the year when the offence was 'cleared', whether or not the offence was 'reported' in that or an earlier year.

Persons involved in crimes cleared. This is the sum of the number of persons dealt with in each of the offences shown as 'cleared'. If more than one person is involved in the one offence, each person is counted. If the same person is involved in more than one offence cleared, he is counted separately for each offence. Persons involved are shown against the categories of offences to which an incident was originally allocated, regardless of the actual offences they are charged with. This basis of counting 'persons involved in offences cleared' was adopted to reveal trends in crime participation by persons in various age-groups. The figures in this series are not directly comparable with statistics of persons charged or convicted in court, or of cases brought before the courts; nor do these figures reveal the number of offenders in the community.

Offences included in the statistics

Homicide. Separate details are provided for murder, attempted murder (i.e. acts done with intent to murder) and manslaughter (unlawful killing other than murder), excluding manslaughter arising from motor traffic accidents.

Serious assault. These are assaults normally dealt with on indictment. Includes woundings, offences causing bodily harm, assaults with a weapon, etc., and attempts of this nature. Excludes sexual assault and robbery.

Robbery. Stealing anything, if at or immediately before or after the time of stealing, the offender uses or threatens to use violence to any person or property in order to obtain the thing stolen, or to prevent or overcome resistance to its being stolen. Includes attempts of this nature.

Rape. Includes attempted rape and assault with intent to rape. Excludes unlawful carnal knowledge (i.e. where consent is given, but the girl is below the legal age of consent, etc.) and indecent assault.

Breaking and entering. Breaking and entering a building (or entering a building and breaking out) *and* committing or intending to commit a crime. Includes burglaries. Separate details are shown according to the type of building involved, namely, *dwellings* (including unoccupied dwellings, tents, caravans, etc. used as dwellings, and the residential parts of hotels, schools, etc.); *shops* (including kiosks, service stations, restaurants, bars, non-residential clubs, etc.); and *offices, factories and warehouses* (including parts of buildings, but excluding dwellings and shops used for such purposes). Includes attempts.

Motor vehicle thefts, illegal use, etc. Includes all offences of illegal, unlawful or unauthorised use, use without consent, unlawfully assuming control, etc., no matter under which legislation these offences are prescribed. Excludes cases of 'interference', but includes attempts at illegal use.

Fraud, forgery, false pretences. Includes embezzlement, 'omit to account', misappropriation, fraudulent appropriation, conversion, larceny as bailee, falsification of accounts, company fraud, forgery, uttering, false pretences, passing of valueless cheques and offences by trustees. Includes attempts, but excludes imposition. As a general rule, offences are included only if there is an element of deception or trickery. Separate details are shown for *valueless cheque* offences (i.e. passing of valueless cheques, whether there is no account, insufficient funds or a false signature of the purported drawer of the cheque. However, this sub-group excludes cases where a genuine cheque is altered or the endorsement of the payee is forged. These cases are regarded as forgery and/or uttering and included in 'other').

In the following tables the figures for Victoria for June included in the totals for the six months ended June 1966 have been estimated.

Number of offences reported or becoming known to police

The following table shows, for Australia, the number of offences in each of the seven categories covered by this series which were reported or became known to police during the six-monthly periods ended June 1964 to June 1966 and the years 1964 and 1965.

SELECTED CRIME REPORTED OR BECOMING KNOWN TO POLICE NUMBER OF OFFENCES, AUSTRALIA, SIX MONTHS ENDED JUNE 1964 TO JUNE 1966 AND YEARS 1964 AND 1965

Category of crime	Six months ended—					1964	1965
	June 1964	Dec. 1964	June 1965	Dec. 1965	June 1966		
Homicide	140	132	149	122	158	272	271
Serious assault	970	954	981	914	1,042	1,924	1,895
Robbery	301	291	346	383	467	592	729
Rape	137	125	118	139	120	262	257
Breaking and entering (dwellings, shops, offices, etc.) . . .	19,472	20,223	21,566	25,050	26,229	39,695	46,616
Motor vehicle theft, etc. . .	11,444	12,095	11,116	13,165	12,772	23,539	24,281
Fraud, forgery, etc. . . .	7,407	8,301	8,880	8,292	7,691	15,708	17,172

The following table shows, for each State and Territory, the number of offences reported or becoming known to police for the years 1964, 1965 and the six months ended June 1966.

SELECTED CRIME REPORTED OR BECOMING KNOWN TO POLICE NUMBER OF OFFENCES, STATES AND TERRITORIES, 1964 TO 1966 (SIX MONTHS)

Category of crime		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Homicide	1964	109	72	56	14	10	4	6	1	272
	1965	111	81	34	14	13	7	6	5	271
	1966(*a*)	52	(*c*) 52	34	8	4	2	5	1	158
Serious assault	1964	545	1,208	61	34	33	27	9	7	1,924
	1965	484	1.243	49	53	13	19	13	21	1,895
	1966(*a*)	254	(*c*) 698	40	28	5	1	9	7	1,042
Robbery	1964	211	252	53	37	22	17	..	..	592
	1965	283	302	72	32	17	17	1	5	729
	1966(*a*)	169	(*c*) 201	51	24	10	8	1	3	467
Rape	1964	91	94	33	21	6	11	2	4	262
	1965	67	93	46	23	13	8	2	5	257
	1966(*a*)	37	(*c*) 47	21	11	3	..	1	..	120
Breaking and entering (dwellings, shops, offices, etc.)	1964	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	39,695
	1965									46,616
	1966(*a*)									26,229
Motor vehicle theft, etc.	1964	11,512	7,269	1,711	1,372	1,153	353	45	124	23,539
	1965	12,214	6,967	1,792	1,472	1,141	420	83	192	24,281
	1966(*a*)	5,865	*c* 4,190	912	684	725	243	52	101	12,772
Fraud, forgery, etc.	1964	5,688	3,828	2,634	2,091	1,020	293	85	69	15,708
	1965	6,311	4,132	3,331	1,617	1,075	344	104	258	17,172
	1966(*a*)	2,566	*c* 1,990	1,342	867	570	88	98	170	7,691

(*a*) Six months ended June. (*b*) Not available by States. (*c*) Partly estimated.

Crimes cleared and persons involved

The tables which follow show, for the various categories of offences, the number of offences reported, the number cleared, and the number of persons involved according to age and sex. Subdivisions of the categories homicide, breaking and entering, and fraud, etc., are provided. *See pages* 521–2 *for definitions used and the bases on which these statistics are prepared.*

HOMICIDE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED AND PERSONS INVOLVED, AUSTRALIA, 1964 TO 1966 (SIX MONTHS)

	Murder			Attempted murder			Man-slaughter			All homicide		
	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)
Number reported or becoming known	143	141	81	95	101	65	34	29	12	272	271	158
Number cleared	137	132	75	92	99	60	34	29	12	263	260	147
Persons involved in crimes cleared—												
Aged(*b*)—												
16 years and under	6	14	3	2	5	2	2	1	..	10	20	5
17 and 18 years	6	5	4	11	6	3	..	1	1	17	12	8
19 and 20 years	12	2	9	7	4	7	6	1	..	25	7	16
21 years and over	132	125	62	82	88	52	29	26	13	243	239	127
Total persons involved	**156**	**146**	78	102	103	64	37	29	14	(*c*) 295	(*c*) 278	(*c*) 156

(*a*) Six months ended June. (*b*) Age last birthday at time of clearance. (*c*) Includes 51 females in 1964, 44 in 1965, and 20 in the six months ended June 1966.

SERIOUS ASSAULT, ROBBERY, RAPE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA 1964 TO 1966 (SIX MONTHS)

	Serious assault			Robbery			Rape		
	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)
Number reported or becoming known	1,924	1,895	1,042	592	729	467	262	257	120
Number cleared . . .	1,693	1,604	867	308	355	207	229	210	96
Persons involved in crimes cleared—									
Aged(*b*)—									
16 years and under .	164	147	58	81	55	41	55	43	15
17 and 18 years . .	364	280	114	122	134	62	110	72	40
19 and 20 years . .	244	251	137	92	93	59	79	60	39
21 years and over . .	1,284	1,197	667	219	315	162	118	143	57
Total persons involved	**(*c*)2,056**	**(*c*)1,875**	**(*c*) 976**	**(*d*) 514**	**(*d*) 597**	**(*d*) 324**	**362**	**318**	**151**

(*a*) Six months ended June. (*b*) Age last birthday at time of clearance. (*c*) Includes 91 females in 1964, 72 in 1965, and 50 in the six months ended June 1966. (*d*) Includes 29 females in 1964, 15 in 1965, and 16 in the six months ended June 1966.

BREAKING AND ENTERING: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA. 1964 TO 1966 (SIX MONTHS)

	Dwellings			Shops			Offices and warehouses			Total		
	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)
Number reported or becoming known .	16,299	18,058	10,101	13,777	15,175	9,051	9,619	13,383	7,077	39,695	46,616	26,229
Number cleared. .	5,540	5,521	2,887	4,559	4,522	2,402	2,717	3,373	1,734	12,816	13,416	7,023
Persons involved in crimes cleared—												
Aged(*b*)—												
16 years and under	4,403	4,295	1,837	2,987	2,952	1,576	2,185	2,809	1,497	9,575	10,056	4,910
17 and 18 years .	1,478	1,107	607	1,246	1,340	783	589	758	359	3,313	3,205	1,749
19 and 20 years .	600	636	351	797	929	545	453	588	292	1,850	2,153	1,188
21 years and over .	1,575	2,212	1,157	2,237	2,306	1,188	1,173	1,614	835	4,985	6,132	3,180
Total persons involved . .	**8,056**	**8,250**	**3,952**	**7,267**	**7,527**	**4,092**	**4,400**	**5,769**	**2,983**	***c*** **19,723**	***c*** **21,546**	***c*** **11,027**

(*a*) Six months ended June. (*b*) Age last birthday at time of clearance. (*c*) Includes 641 females in 1964, 505 in 1965, and 202 in the six months ended June 1966.

MOTOR VEHICLE THEFT, ETC., FRAUD, ETC.: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA 1964 TO 1966 (SIX MONTHS)

	Motor vehicle theft, etc.			Fraud, forgery, false pretences								
				Valueless cheques			Other			All frauds, etc.		
	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)	1964	1965	1966 (*a*)
Number reported or becoming known .	23,539	24,281	12,772	6,707	7,269	3,623	9,001	9,903	4,068	15,708	17,172	7,691
Number cleared. .	5,357	5,563	2,654	5,015	5,342	2,709	8,022	9,109	3,694	13,037	14,451	6,403
Persons involved in crimes cleared—												
Males aged(*b*)—												
16 years and under	3,465	3,490	1,596	72	113	21	250	250	178	322	363	199
17 and 18 years .	2,818	2,844	1,267	110	179	68	186	183	110	296	362	178
19 and 20 years .	1,427	1,163	621	277	294	166	384	383	156	661	671	322
21 years and over .	1,504	1,754	864	4,205	4,280	2,137	5,418	6,674	2,398	9,623	10,954	4,535
Total males .	*9,214*	*9,251*	*4,348*	*4,664*	*4,866*	*2,392*	*6,238*	*7,490*	*2,842*	*10,902*	*12,356*	*5,234*
Females aged(*b*)—												
16 years and under	53	98	24	18	13	8	106	178	72	124	191	80
17 and 18 years .	38	34	14	23	23	16	217	253	127	240	276	143
19 and 20 years .	23	19	7	40	49	30	225	220	146	265	269	176
21 years and over .	31	37	11	463	598	307	1,587	1,264	480	2,050	1,862	787
Total females .	*145*	*188*	*56*	*544*	*683*	*361*	*2,135*	*1,915*	*825*	*2,679*	*2,598*	*1,186*
Total persons involved . .	**9,359**	**9,439**	**4,404**	**5,208**	**5,549**	**2,753**	**8,373**	**9,405**	**3,667**	**13,581**	**14,954**	**6,420**

(*a*) Six months ended June. (*b*) Age last birthday at time of clearance.

The number of stolen motor vehicles recovered were: 1964, 20,957; 1965, 21,678; six months ended June 1966, 11,790.

Convictions for serious crime at lower (magistrates') courts

The figures given in the tables on page 520 refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order, which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at magistrates' courts for the years 1961 to 1965 for what may be regarded as the more serious offences, i.e. offences against the person, offences against property, forgery, and offences against the currency.

CONVICTIONS FOR SERIOUS CRIME(*a*) AT MAGISTRATES' COURTS: STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales	31,696	32,320	32,656	31,826	34,585
Victoria	15,949	19,016	(*b*) 21,540	(*b*) 23,131	(*b*) 23,785
Queensland(*c*)(*d*)	4,736	4,833	5,768	5,707	6,160
South Australia(*c*)	3,552	3,693	3,727	4,145	4,813
Western Australia(*e*)	5,256	6,814	7,813	7,189	6,925
Tasmania	1,636	1,704	1,570	2,122	3,670
Northern Territory(*f*)	285	419	591	469	627
Australian Capital Territory	573	286	492	480	627
Australia	**63,683**	**69,085**	**74,157**	**75,069**	**81,192**

(*a*) Offences against the person, offences against property, forgery, and offences against the currency. (*b*) Excludes prosecutions by authorities other than the Police Department. (*c*) Year ended 30 June. (*d*) A person convicted on several counts at the one hearing is included only once. (*e*) Excludes Aborigines. (*f*) Excludes courts at Tennant Creek and Katherine.

Committals to higher (judges') courts

The following tables show the number of committals to higher courts in each State and Territory.

COMMITTALS TO HIGHER COURTS, BY CLASS OF OFFENCE: STATES AND TERRITORIES, 1965

Class of offence	N.S.W.	Vic. (*a*)	Qld (*b*)(*c*)	S.A. (*b*)	W.A. (*d*)	Tas.	N.T. (*e*)	A.C.T.	Australia
Against the person	1,351	1,243	373	335	94	102	36	32	3,566
Against property	5,889	2,334	1,090	370	331	257	68	170	10,509
Forgery and offences against the currency	491	347	7	23	53	37	61	7	1,026
Against good order	142	89	..	11	4	11	..	4	261
Other	35	732	7	14	5	7	4	11	815
Total	**7,908**	**4,745**	**1,477**	**753**	**487**	**414**	**169**	**224**	**16,177**

(*a*) Excludes prosecutions by authorities other than the Police Department. (*b*) Year ended 30 June. (*c*) A person committed on several counts at the one hearing is included only once. (*d*) Excludes Aborigines. (*e*) Excludes courts at Tennant Creek and Katherine.

COMMITTALS TO HIGHER COURTS: STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales	8,294	7,414	8,538	7,575	7,908
Victoria	4,598	5,468	(*a*) 5,306	(*a*) r 5,343	(*a*) 4,745
Queensland(*b*)(*c*)	1,527	1,295	1,354	1,270	1,477
South Australia(*b*)	671	712	600	602	753
Western Australia(*d*)	298	450	523	443	487
Tasmania	725	643	705	610	414
Northern Territory(*e*)	86	92	107	65	169
Australian Capital Territory	65	110	92	177	224
Australia	**16,264**	**16,184**	**17,225**	**r16,085**	**16,177**

(*a*) Excludes prosecutions by authorities other than the Police Department. (*b*) Year ended 30 June. (*c*) A person committed on several counts at the one hearing is included only once. (*d*) Excludes Aborigines. (*e*) Excludes courts at Tennant Creek and Katherine.

Persons convicted at higher (judges') courts

The following tables show the number of persons convicted at higher courts in each State and Territory.

PERSONS CONVICTED AT HIGHER COURTS, BY NATURE OF OFFENCE: STATES AND TERRITORIES, 1965

Offence	N.S.W.	Vic.	Qld (*a*)(*b*)	S.A.	W.A. (*c*)	Tas.	N.T.	A.C.T.	Aust.
Against the person—									
Concealment of birth	..	..	..	1	..	1	..	..	2
Murder	24	6	9	1	2	..	..	1	43
Attempted murder	3	2	4	..	1	..	..	..	10
Manslaughter(*d*)	28	15	8	10	12	1	4	..	78
Culpable driving	43	..	25	2	..	1	..	..	71
Rape	13	25	20	2	8	4	..	..	72
Incest	7	18	6	9	5	2	..	..	47
Other offences against females	305	341	101	188	11	22	2	4	974
Abduction	2	9	1	..	..	7	..	..	19
Unnatural offences	88	37	17	22	7	10	2	3	186
Abortion and attempt to procure	5	7	..	3	7	..	..	..	22
Bigamy	17	8	4	7	1	..	..	..	37
Malicious wounding	39	..	..	..	..	..	2	3	44
Aggravated assault	45	40	41	22	12	7	4	8	179
Common assault	50	31	4	9	..	..	..	3	97
Attempted suicide	..	..	..	..	..	..	1	..	1
Other offences against the person	14	59	7	..	..	..	2	..	82
Total against the person	*683*	*598*	*247*	*276*	*66*	*55*	*17*	*22*	*1,964*
Against property—									
Burglary, breaking and entering	1,204	261	661	270	155	55	41	33	2,680
Robbery and stealing from the person	107	38	17	23	13	30	6	1	235
Livestock stealing	..	16	2	9	5	..	..	..	32
Embezzlement and fraudulent misappropriation	77	60	3	9	10	3	..	4	166
Other larceny	598	42	33	14	14	1	2	12	716
Unlawfully using vehicles	2	73	146	..	1	..	..	2	224
Receiving	53	59	51	4	5	6	1	2	181
Fraud and false pretences	101	44	7	28	8	5	1	7	201
Arson	4	8	13	1	..	6	..	..	32
Malicious damage	13	6	7	1	..	..	..	..	27
Other offences against property	4	14	6	3	..	..	..	1	28
Total against property	*2,163*	*621*	*946*	*362*	*211*	*106*	*51*	*62*	*4,522*
Forgery and offences against the currency	23	55	6	20	10	6	4	..	124
Against good order	5	39	..	..	3	1	4	..	52
Other	26	305	2	55	2	2	..	1	393
Grand total	**2,900**	**1,618**	**1,201**	**713**	**292**	**170**	**76**	**85**	**7,055**

(*a*) Year ended 30 June. (*b*) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (*c*) Excludes Aborigines. (*d*) Includes causing death by dangerous driving.

PERSONS CONVICTED AT HIGHER COURTS: STATES AND TERRITORIES 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales	2,712	2,513	2,907	2,689	2,900
Victoria	2,307	2,329	1,946	1,793	1,618
Queensland(*a*)(*b*)	1,279	1,175	1,187	1,134	1,201
South Australia	606	718	745	629	713
Western Australia(*c*)	203	228	300	240	292
Tasmania	304	270	293	172	170
Northern Territory	r 65	r 49	r 56	r 41	76
Australian Capital Territory	54	57	51	66	85
Australia	r 7,530	r 7,339	r 7,485	r 6,764	7,055

(*a*) Year ended 30 June. (*b*) *See* note (*b*) above. (*c*) Excludes Aborigines.

Civil cases

The statistics in the two tables in this section are influenced by factors which affect comparability between States and between courts. The total number of plaints entered and amounts awarded plaintiffs in the lower courts during 1965 are shown in the following table.

CIVIL CASES AT LOWER COURTS: STATES AND TERRITORIES, 1965

	N.S.W.	Vic.	Qld (a)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Plaints entered number	186,620	201,095	48,469	104,297	56,141	39,102	1,566	7,464	644,754
Amounts awarded to plaintiffs $'000	6,438	8,848	3,330	3,594	2,627	577	38	261	25,713

(*a*) Year ended 30 June.

The following table shows the civil judgments (excluding those for divorce and bankruptcy) in the higher courts during 1965. The particulars given below include the number and amount of judgments entered by default or confession or agreement.

CIVIL CASES AT HIGHER COURTS: STATES AND TERRITORIES, 1965

	N.S.W.	Vic.	Qld (a)	S.A.	W.A. (b)	Tas.	N.T.	A.C.T.	Australia
Judgments number	52,014	9,700	687	268	490	n.a.	n.a.	590	n.a.
Amount awarded $'000	n.a.	6,651	3,254	1,689	2,227	n.a.	n.a.	1,086	n.a.

(*a*) Year ended 30 June. (*b*) Judgments signed and entered.

Transactions of the High Court

TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA, 1965 AND 1966

Original jurisdiction(*a*)	1965	1966	Appellate jurisdiction	1965	1966
Number of writs issued .	122	79	Number of appeals set down for hearing . . .	120	93
Number of causes entered for trial . . .	20	25			
Judgments for plaintiffs .	12	4	Number allowed . .	39	31
Judgments for defendants .	5	3			
Otherwise disposed of .	23	14	Number dismissed . .	61	68
Amounts of judgments $	114,424	9,115	Otherwise disposed of .	27	20

(*a*) Some matters dealt with by the High Court neither originate as writs nor are entered as causes.

During 1965 and 1966, respectively, the High Court dealt also with the following: appeals from assessments under the Taxation Assessment Acts, 46, 24; special cases stated for the opinion of the Full Court, 16, 7; applications for prohibition, etc., 13, 30. The fees collected amounted to $7,056 in 1965 and $7,975 in 1966

Divorce and other matrimonial causes

Separation and maintenance orders of courts of summary jurisdiction

In all States and Territories there are laws enabling a wife whose husband leaves her or the children of the marriage without adequate means of support to obtain a maintenance order against the husband from a court of summary jurisdiction. In some States and in the Northern Territory, courts of summary jurisdiction also have power to make separation orders. A separation order is intended primarily for the protection of the person of the wife.

Divorce and other matrimonial proceedings in higher courts

A marriage may be terminated by a Supreme Court of a State or Territory, under powers vested in these courts by Commonwealth legislation, in one of three ways. Firstly, there may be a dissolution of the marriage, commonly known as divorce; secondly, the courts may annul a marriage; and thirdly, there can be a judicial separation of the parties. Until the Commonwealth *Matrimonial Causes Act* 1959 came into operation each State was primarily responsible for legislation relating to matrimonial causes. The law varied from State to State, for example, as to the period of desertion needed to obtain a decree for the dissolution of marriage. In 1959, however, the Commonwealth Matrimonial Causes Act was passed, and it came into force on 1 February 1961. The Act establishes uniform grounds throughout the whole of the Commonwealth for the termination of marriage. While the Act displaces corresponding State law, it vests jurisdiction in existing State and Territorial Courts.

Matrimonial Causes Act 1959-1966

Under this Act a decree for the dissolution of marriage may be granted on one or more of fourteen grounds, which include adultery, desertion, separation for five years in certain circumstances, cruelty, drunkenness, and failure to comply with a restitution decree.

Proceedings for nullity of marriage may be instituted in respect of a marriage which is void or voidable. A marriage which is void has no existence at all, and so it is not legally necessary to obtain a decree of nullity of marriage, but since the issue may depend on difficult questions of fact, such as proof that the consent of one of the parties to the marriage was not a real consent, it is advisable and customary to seek a court judgment which decides the question of the validity of the marriage.

Proceedings for annulling a voidable marriage may be instituted on various grounds, as, for example, where at the time of the marriage either party was a mental defective. A voidable marriage is void from the date of the decree absolute, but until then the parties have the status of married people and transactions concluded on the basis of the existence of that status cannot be undone or re-opened. Since the parties to a marriage which is void or which has been voided do not have the status of married people, they may remarry.

The death of either husband or wife terminates any proceedings under the Act. A decree for dissolution or annulment of a voidable marriage is first a decree *nisi*. The decree automatically becomes absolute at the expiration of three months, unless it is in the meantime rescinded, appeal proceedings are instituted, or there are children of the marriage under the age of 16, in which case the Court must be satisfied that appropriate arrangements have been made for their welfare before the decree will become absolute. The parties cannot remarry until a decree *nisi* has become absolute.

A decree of judicial separation is available on most of the grounds available for divorce. It leaves unimpaired the status of marriage, but suspends rights and duties with respect to cohabitation. A husband is not responsible for the acts of his wife, except that he is liable for necessaries supplied to her if he has failed to pay alimony ordered by a court. Persons who have judicially separated cannot remarry, but a divorce may be obtained on the same facts as those on which the decree of judicial separation was based.

The Act provides for financial grants to approved marriage guidance organisations and the courts are enjoined to consider at all times the possibility of reconciliation and they may take certain steps to endeavour to effect a reconciliation.

Number of petitions filed

The following table shows the number of petitions for dissolution of marriage, nullity of marriage and judicial separation filed in each State and Territory during 1966.

PETITIONS FILED FOR DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION: STATES AND TERRITORIES, 1966

Petition for—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of marriage—										
Husband petitioner		1,821	1,143	517	419	375	156	23	56	4,510
Wife petitioner		3,071	1,478	656	714	412	201	23	67	6,622
Total		*4,892*	*2,621*	*1,173*	*1,133*	*787*	*357*	*46*	*123*	*11,132*
Nullity of marriage—										
Husband petitioner		11	8	1	3	2	..	..	..	25
Wife petitioner		16	6	3	4	1	..	..	..	30
Total		*27*	*14*	*4*	*7*	*3*	..	..	..	*55*
Dissolution or nullity—										
Husband petitioner		3	3	1	2	..	..	..	..	9
Wife petitioner		3	5	2	1	..	..	..	1	12
Total		*6*	*8*	*3*	*3*	..	..	..	*1*	*21*
Judicial separation—										
Husband petitioner		..	..	..	..	1	..	..	..	1
Wife petitioner		13	1	4	2	..	..	..	4	24
Total		*13*	*1*	*4*	*2*	*1*	..	..	*4*	*25*
Dissolution or judicial separation—										
Husband petitioner		..	..	..	..	..	..	..	..	..
Wife petitioner		..	1	..	2	..	..	..	..	3
Total		..	*1*	..	*2*	..	..	..	..	*3*
Total petitions—										
Husband petitioner	no.	1,835	1,154	519	424	378	156	23	56	4,545
	per cent	37	44	44	37	48	44	50	44	40
Wife petitioner	no.	3,103	1,491	665	723	413	201	23	72	6,691
	per cent	63	56	56	63	52	56	50	56	60
Grand total		**4,938**	**2,645**	**1,184**	**1,147**	**791**	**357**	**46**	**128**	**11,236**

Number of decrees granted

The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory during 1966.

DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED: STATES AND TERRITORIES, 1966

Decree for—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of marriage(a)—										
Husband petitioner		1,697	894	481	407	314	141	28	48	4,010
Wife petitioner		2,818	1,230	550	662	322	176	30	53	5,841
Petition by both		..	7	..	..	1	..	..	..	8
Total		*4,515*	*2,131*	*1,031*	*1,069*	*637*	*317*	*58*	*101*	*9,859*
Nullity of marriage(b)—										
Husband petitioner		6	2	4	5	..	1	..	..	18
Wife petitioner		13	9	3	4	3	..	..	..	32
Total		*19*	*11*	*7*	*9*	*3*	*1*	..	..	*50*
Judicial separation—										
Husband petitioner		..	..	..	..	..	..	..	..	..
Wife petitioner		4	2	1	2	..	1	..	2	12
Total		*4*	*2*	*1*	*2*	..	*1*	..	*2*	*12*
Total decrees—										
Husband petitioner	no.	1,703	896	485	412	314	142	28	48	4,028
	per cent	38	42	47	38	49	45	48	47	41
Wife petitioner	no.	2,835	1,241	554	668	325	177	30	55	5,885
	per cent	62	58	53	62	51	55	52	53	59
Petition by both	no.	..	7	..	..	1	..	..	..	8
Grand total		**4,538**	**2,144**	**1,039**	**1,080**	**640**	**319**	**58**	**103**	**9,921**

(*a*) Decrees absolute. (*b*) Final decrees.

The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory for each year from 1962 to 1966.

DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED: STATES AND TERRITORIES, 1962 TO 1966

State or Territory	1962	1963	1964	1965	1966
DISSOLUTIONS OF MARRIAGE(*a*)					
New South Wales	3,113	3,293	3,024	3,440	4,515
Victoria	1,615	1,616	2,130	2,089	2,131
Queensland	920	910	981	1,052	1,031
South Australia	685	765	887	852	1,069
Western Australia	582	553	542	604	637
Tasmania	248	260	229	279	317
Northern Territory	38	38	31	41	58
Australian Capital Territory	44	41	93	134	101
Australia	*7,245*	*7,476*	*7,917*	*8,491*	*9,859*
NULLITIES OF MARRIAGE(*b*)					
New South Wales	18	13	14	14	19
Victoria	8	7	19	13	11
Queensland	5	6	5	3	7
South Australia	6	5	3	3	9
Western Australia	2	1	2	2	3
Tasmania	1	..	1	..	1
Northern Territory	..	..	..	..	..
Australian Capital Territory	..	..	..	..	..
Australia	*40*	*32*	*44*	*35*	*50*
JUDICIAL SEPARATIONS					
New South Wales	..	..	3	1	4
Victoria	..	3	2	1	2
Queensland	3	3	..	4	1
South Australia	1	..	..	..	2
Western Australia	1	..	1	..	..
Tasmania	..	1	..	1	1
Northern Territory	..	..	..	..	..
Australian Capital Territory	..	..	..	1	2
Australia	*5*	*7*	*6*	*8*	*12*
TOTAL DECREES GRANTED					
Australia	**7,290**	**7,513**	**7,967**	**8,534**	**9,921**

(*a*) Decrees absolute. (*b*) Final decrees.

The ten-year averages of the numbers of decrees (i.e. dissolutions, nullities and judicial separations) granted annually in Australia for the 80 years from 1881 to 1960 are as follows:

1881–90	1891–1900	1901–10	1911–20	1921–30	1931–40	1941–50	1951–60
70	357	399	741	1,692	2,508	6,187	6,973

Grounds on which decrees were granted

The grounds on which dissolutions of marriage, nullities of marriage and judicial separations were granted in each State and Territory during 1966 are shown in the following table.

DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS: GROUNDS, STATES AND TERRITORIES, 1966

DISSOLUTIONS OF MARRIAGE

Ground	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Single grounds—									
Desertion	2,259	1,007	512	361	199	141	27	26	4,532
Adultery	882	544	205	309	245	58	11	34	2,288
Separation	769	505	229	213	152	74	13	13	1,968
Cruelty	250	31	40	136	10	9	2	10	488
Drunkenness	71	13	14	32	3	3	2	4	142
Failure to pay maintenance	2	..	..	1	3	..	..	..	6
Non-compliance with restitution decree	6	..	..	1	..	..	..	..	7
Refusal to consummate	14	2	2	2	2	1	..	..	23
Insanity	5	2	1	2	..	..	..	..	10
Frequent convictions	9	5	..	1	..	..	..	..	15
Imprisonment	2	1	1	1	1	..	..	..	6
Other single grounds	5	2	..	1	..	..	..	..	8
Dual grounds—									
Desertion and adultery	56	9	12	3	4	5	..	4	93
Desertion and separation	38	1	6	2	6	11	..	3	67
Desertion and cruelty	27	..	..	..	1	3	2	1	34
Desertion and drunkenness	17	2	..	..	1	..	..	..	20
Desertion and failure to pay maintenance	2	1	..	..	1	1	..	..	5
Desertion and other	3	..	..	2	..	1	..	..	6
Adultery and separation	4	..	2	..	1	..	..	..	7
Adultery and cruelty	4	..	..	1	1	1	..	1	8
Adultery and frequent convictions	..	2	..	..	..	..	..	..	2
Separation and other	..	1	..	..	2	1	..	1	5
Cruelty and drunkenness	75	2	7	1	3	6	1	3	98
Cruelty and other	1	1	..	..	1	..	..	..	3
Other dual grounds	2	..	..	..	..	..	..	..	2
Three grounds or more	12	..	..	..	1	2	..	1	16
Total	*4,515*	*2,131*	*1,031*	*1,069*	*637*	*317*	*58*	*101*	*9,859*

NULLITY OF MARRIAGE

Ground	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Bigamy	11	2	1	3	3	1	..	..	21
Invalid marriage	..	1	..	1	..	..	..	..	2
Consent under duress or by fraud	1	..	1	..	..	..	..	..	2
Incapacity to consummate	7	8	4	3	..	..	..	..	22
Pregnancy	..	..	1	2	..	..	..	..	3
Total	*19*	*11*	*7*	*9*	*3*	*1*	..	..	*50*

JUDICIAL SEPARATIONS

Ground	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Desertion	1	1	..	1	..	..	..	..	3
Adultery	2	..	1	..	..	1	..	..	4
Cruelty	..	1	..	..	..	..	..	1	2
Drunkenness	..	..	..	1	..	..	..	..	1
Desertion and cruelty	1	..	..	..	..	..	..	..	1
Adultery and cruelty	..	..	..	..	..	..	..	1	1
Total	*4*	*2*	*1*	*2*	..	*1*	..	*2*	*12*

TOTAL DECREES GRANTED

Ground	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Grand total	**4,538**	**2,144**	**1,039**	**1,080**	**640**	**319**	**58**	**103**	**9,921**

Ages of husband and wife at time of marriage

The following table shows the ages at time of marriage of husbands and wives who were parties to marriages dissolved in 1966.

DISSOLUTIONS, BY AGES OF PARTIES AT TIME OF MARRIAGE AUSTRALIA, 1966

Age of husband (years)	Age of wife (years)											Total husbands
	Under 20	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60 and over	Not stated	
Under 20 . .	604	156	9	1	..	..	..	..	..	..	..	770
20–24 . .	2,052	2,312	271	43	6	1	..	..	..	..	..	4,685
25–29 . .	524	1,314	536	113	31	3	3	..	..	..	1	2,525
30–34 . .	110	332	262	155	60	14	4	..	..	..	..	937
35–39 . .	24	91	94	82	79	30	8	..	1	..	..	409
40–44 . .	4	23	45	55	52	44	19	5	..	1	..	248
45–49 . .	2	11	19	25	26	31	22	6	..	..	..	142
50–54 . .	1	2	4	4	12	10	13	13	5	2	..	66
55–59 . .	..	..	3	2	4	5	7	7	10	1	..	39
60 and over .	1	..	1	1	1	2	3	4	8	9	..	30
Not stated . .	..	..	..	1	..	..	1	..	..	..	6	8
Total wives .	**3,222**	**4,241**	**1,244**	**482**	**271**	**140**	**80**	**35**	**24**	**13**	**7**	**9,859**

Ages of husband and wife at time of dissolution of marriage

The following table shows the number of husbands and wives in each age group who were parties to marriages dissolved in 1966. Age is taken at the time the decree absolute was made.

DISSOLUTIONS, BY AGES OF PARTIES AT TIME OF DISSOLUTION OF MARRIAGE AUSTRALIA, 1966

Age of husband (years)	Age of wife (years)											Total husbands
	Under 20	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60 and over	Not stated	
Under 20 . .	2	..	..	..	..	..	..	..	..	..	..	2
20–24 . .	15	228	33	1	..	..	..	..	..	..	..	277
25–29 . .	4	501	757	66	7	2	1	..	..	..	..	1,338
30–34 . .	1	97	736	628	87	21	6	..	..	..	1	1,577
35–39 . .	..	21	212	705	610	124	19	3	1	..	..	1,695
40–44 . .	..	7	45	181	623	632	114	24	4	1	..	1,631
45–49 . .	..	1	9	42	157	431	435	97	13	6	..	1,191
50–54 . .	..	..	7	15	57	177	359	277	77	11	..	980
55–59 . .	..	1	..	5	17	57	101	198	159	49	..	587
60 and over .	..	1	1	2	5	15	43	107	146	254	..	574
Not stated . .	..	..	..	..	..	1	..	..	1	..	5	7
Total wives	**22**	**857**	**1,800**	**1,645**	**1,563**	**1,460**	**1,078**	**706**	**401**	**321**	**6**	**9,859**

Duration of marriages dissolved and number of children

The following table shows the number of dissolutions of marriage granted in 1966, classified according to the legal duration of the marriage (i.e., the period from the date of marriage to the date when the decree *nisi* was made absolute) and number of children.

DISSOLUTIONS, BY DURATION OF MARRIAGES DISSOLVED AND NUMBER OF CHILDREN: AUSTRALIA, 1966

Duration of marriage (years)	Dissolutions of marriages with—											Total dissolutions of marriage	Total children (*a*)
	No children	1 child	2 children	3 children	4 children	5 children	6 children	7 children	8 children	9 children	10 children		
Under 1 year	..	..	..	..	..	..	..	..	..	..	..	..	..
1 year and under 2	22	1	1	..	..	..	..	..	..	..	..	24	3
2 years and under 3	42	14	4	1	..	..	..	..	..	..	..	61	25
3 " " " 4	129	48	10	1	..	..	..	..	..	..	..	188	71
4 " " " 5	279	174	41	7	6	..	..	..	..	..	..	507	301
5 " " " 6	270	194	72	6	2	1	..	..	..	..	..	545	369
6 " " " 7	223	193	97	17	3	..	..	..	..	..	..	533	450
7 " " " 8	183	157	106	34	7	4	..	..	..	..	..	491	519
8 " " " 9	175	148	130	32	7	2	..	..	..	..	..	494	542
9 " " " 10	140	134	153	42	16	2	..	..	..	..	..	487	640
10 " " " 11	134	124	126	50	24	2	..	1	..	..	..	461	639
11 " " " 12	120	113	112	68	13	4	..	..	..	..	..	430	613
12 " " " 13	108	88	90	81	18	8	4	3	1	..	..	401	676
13 " " " 14	83	90	91	55	29	8	4	..	..	..	..	360	617
14 " " " 15	87	62	101	55	34	10	3	..	..	..	..	352	633
15 " " " 16	76	74	96	62	31	14	5	..	..	..	1	359	686
16 " " " 17	80	73	92	49	21	10	9	..	1	..	..	335	600
17 " " " 18	81	75	105	66	20	13	4	3	..	..	..	367	673
18 " " " 19	65	58	91	81	33	10	11	2	2	1	..	354	770
19 " " " 20	44	71	94	63	30	17	4	2	3	..	..	328	715
20 " " " 21	70	69	103	55	31	11	7	..	1	1	1	349	688
21 " " " 25	196	211	288	134	66	27	12	1	3	..	..	938	1,691
25 " " " 30	345	229	116	67	19	7	1	..	2	..	..	789	795
30 " " " 35	253	86	32	12	..	2	..	..	..	..	..	385	196
35 " " " 40	164	17	6	1	..	..	..	..	..	..	..	188	32
40 " " " 45	83	4	..	..	..	..	..	..	..	..	..	87	4
45 " and over	48	..	1	..	..	..	..	..	..	..	..	49	2
Total dissolutions of marriage	3,500	2,507	2,158	1,039	410	152	64	12	13	2	2	9,859	..
Total children(*a*)	..	2,507	4,316	3,117	1,640	760	384	84	104	18	20	..	12,950

(*a*) The term 'children' used in the Commonwealth legislation refers to living 'children of the marriage' under 21 years at the time of petition.

Ages of children of dissolved marriages

The following table shows the ages of children of marriages dissolved in 1966. The children referred to are those under 21 years of age at the time of petition.

CHILDREN OF DISSOLVED MARRIAGES(*a*), BY AGE AT TIME OF PETITION AUSTRALIA, 1966

Petitioner	Ages of children at time of petition—																		Total number of children
	Under 12 mths	1 yr	2 yrs	3 yrs	4 yrs	5 yrs	6 yrs	7 yrs	8 yrs	9 yrs	10 yrs	11 yrs	12 yrs	13 yrs	14 yrs	15 yrs	16–20 yrs	Not stated	
Husband	21	81	175	226	267	309	297	325	324	297	286	284	256	251	272	245	992	2	4,910
Wife	52	159	362	436	459	525	491	502	491	472	433	438	423	405	381	404	1,589	2	8,024
Petitions of both	..	..	..	1	..	3	..	3	..	2	1	1	1	3	..	..	1	..	16
Total	73	240	537	663	726	837	788	830	815	771	720	723	680	659	653	649	2,582	4	12,950

(*a*) *See* footnote (*a*) to preceding table.

Number of divorced persons at each census, 1911 to 1961

The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1911 to 1961. A classification of divorced persons by ages for the censuses from 1891 to 1947 appeared in earlier issues of the Year Book (*see* No. 39, page 269). Prior to 1911 no record was made of divorced persons in South Australia, so comparisons cannot be made beyond that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA, 1911 TO 1961

Sex	Number						Proportion per 10,000 of males or females 15 years of age and over					
	1911	1921	1933	1947	1954	1961	1911	1921	1933	1947	1954	1961
Males . .	2,368	4,233	10,298	25,052	32,389	38,640	15	23	42	89	100	105
Females . .	2,140	4,304	10,888	27,516	36,650	43,339	15	24	46	96	115	119

Bankruptcy

Particulars of bankruptcy in each State to the end of 1927 were incorporated in issues of the Year Book prior to No. 23. On 1 August 1928 the Bankruptcy Act of the Commonwealth, which is now the *Bankruptcy Act* 1924–1965, came into operation.

Under the *Bankruptcy Act* 1924–1965 the Commonwealth is divided into bankruptcy districts which coincide generally with State boundaries. A Federal Court of Bankruptcy has been established with jurisdiction throughout Australia, but it exercises this jurisdiction mainly in the bankruptcy districts of New South Wales, which includes the Australian Capital Territory, and Victoria. Certain State courts have been invested with federal jurisdiction in bankruptcy and, outside New South Wales and Victoria, usually exercise that jurisdiction in the appropriate bankruptcy district.

Any person unable to pay his debts may apply voluntarily for the sequestration of his estate, or his creditors may apply for a compulsory sequestration if he has committed an act of bankruptcy. The act of bankruptcy usually relied on is non-compliance by a debtor with a bankruptcy notice which requires the debtor to whom it is addressed to pay within a specified time, to a creditor who has obtained a final judgment or order to pay, the amount of the debt, or satisfy the Court that he has a counter claim, set-off, or cross demand which equals or exceeds the judgment debt. If a bankruptcy notice is not complied with, a creditor may thereupon present a petition against a debtor, provided that the debt or debts amount to $100, the act of bankruptcy relied on has occurred within the six months preceding the presentation of the petition, and the statutory requirements relating to domicile or residence are applicable to the debtor.

Upon the issue of a sequestration order the property of the bankrupt vests in the official receiver named in the order, and his property is divisible among his creditors in accordance with the provisions of the Act. No creditor to whom the bankrupt is indebted in respect of any debt provable in bankruptcy has any remedy against the property or person of the bankrupt except by leave of the court.

Under Part XI of the Act, instead of having a sequestration order made against his estate, a debtor may compound with his creditors or assign his estate for their benefit. Under Part XII of the Act a debtor may enter into a scheme of arrangement. The object of Parts XI and XII of the Act is to allow a debtor and his creditors to enter into an agreement concerning the debts due to the creditors without having a sequestration order made against the debtor.

The Court has power to decide questions of law affecting a bankrupt estate. Questions of fact may be tried before a jury.

The Act provides for an Inspector-General in Bankruptcy. It also provides for a Registrar and an Official Receiver to be appointed for each bankruptcy district. A Registrar in Bankruptcy is controlled by the Court and has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and exercises such functions of an administrative nature as are authorised by the Court. He may examine a bankrupt, or a person indebted to a bankrupt or having in his possession any of the estate or effects of a bankrupt. Stipendiary magistrates are appointed Deputy Registrars in country districts.

All sequestrated estates are vested in an Official Receiver, who is a permanent officer of the Commonwealth Public Service. His duties are to investigate the conduct, property and transactions of the debtor, and the cause of bankruptcy of a debtor, and to realise and administer the estate of the debtor. In respect of these activities the Official Receiver is under the control of the Court.

Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates. In cases where a registered trustee under a deed of arrangement, composition or assignment (Parts XI and XII of the Act) is removed from or vacates his office, the official receiver may be appointed by the Court to complete the administration of the estate, or the Court may direct the official receiver to convene a meeting of the creditors in the estate to enable them to appoint a registered trustee to complete the administration of the estate.

Bankruptcy proceedings

The following table shows the number of bankruptcies of the various types in each State, together with the assets and liabilities of the debtors, during 1965–66.

BANKRUPTCY PROCEEDINGS: STATES AND TERRITORIES, 1965-66

State or Territory			Sequestration orders and orders for administration of deceased debtors' estates	Compositions and schemes under Part XI	Deeds under Part XI	Deeds of arrangement, Part XII	Total
N.S.W. (*a*)	Number	.	757	8	3	50	818
	Liabilities	$	5,061,512	166,673	39,722	1,364,955	6,632,862
	Assets	$	2,456,423	85,446	36,669	1,134,243	3,712,781
Vic.	Number	.	522	29	3	40	594
	Liabilities	$	4,449,564	1,803,244	248,663	721,415	7,222,886
	Assets	$	1,590,658	1,748,559	325,891	459,602	4,124,710
Qld	Number	.	245	1	1	15	262
	Liabilities	$	1,615,812	1,600	37,937	459,653	2,115,002
	Assets	$	789,642	4,698	1,101	379,567	1,175,008
S. Aust.	Number	.	556	25	11	..	592
	Liabilities	$	2,604,925	322,703	216,766	..	3,144,394
	Assets	$	1,248,511	195,618	265,117	..	1,709,246
W. Aust.	Number	.	197	70	5	5	277
	Liabilities	$	754,854	1,787,881	91,042	597,482	3,231,259
	Assets	$	186,685	1,550,992	95,790	636,242	2,469,709
Tas.	Number	.	103	..	..	3	106
	Liabilities	$	591,312	..	..	32,294	623,606
	Assets	$	208,416	..	..	13,384	221,800
N.T.	Number	.	4	..	..	..	4
	Liabilities	$	28,406	..	..	..	28,406
	Assets	$	7,799	..	..	..	7,799
Australia	**Number**	.	**2,384**	**133**	**23**	**113**	**2,653**
	Liabilities	**$**	**15,106,385**	**4,082,101**	**634,130**	**3,175,799**	**22,998,415**
	Assets	**$**	**6,488,134**	**3,585,313**	**724,568**	**2,623,038**	**13,421,053**

(*a*) Includes the Australian Capital Territory.

The two tables which follow show Australian figures in respect of each of the various types of bankruptcy, and State figures in respect of all types of bankruptcy, for the years 1961–62 to 1965–66.

BANKRUPTCY PROCEEDINGS: AUSTRALIA, 1961-62 TO 1965-66

Year			Sequestration orders and orders for administration of deceased debtors' estates	Compositions and schemes under Part XI	Deeds under Part XI	Deeds of arrangement, Part XII	Total
1961–62	Number . .		2,239	172	31	218	2,660
	Liabilities	$'000	13,977	2,157	476	3,273	19,882
	Assets	$'000	7,008	1,747	388	2,770	11,912
1962–63	Number . .		2,371	183	23	158	2,735
	Liabilities	$'000	14,010	3,776	432	3,165	21,383
	Assets	$'000	5,925	3,541	514	2,813	12,793
1963–64	Number . .		2,392	142	23	121	2,678
	Liabilities	$'000	15,608	1,753	688	2,593	20,642
	Assets	$'000	6,393	1,231	490	2,179	10,292
1964–65	Number . .		2,453	128	13	110	2,704
	Liabilities	$'000	15,740	1,993	312	1,804	19,850
	Assets	$'000	6,127	1,129	129	1,365	8,749
1965–66	Number . .		2,384	133	23	113	2,653
	Liabilities	$'000	15,106	4,082	634	3,176	22,998
	Assets	$'000	6,488	3,585	725	2,623	13,421

BANKRUPTCY PROCEEDINGS: STATES AND TERRITORIES, 1961-62 TO 1965-66

Year			N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
1961–62	Number . .		865	587	285	581	238	98	6	2,660
	Liabilities	$'000	6,520	4,813	2,641	3,512	1,727	612	57	19,882
	Assets	$'000	4,123	2,008	2,345	2,103	985	329	20	11,912
1962–63	Number . .		872	625	258	617	241	119	3	2,735
	Liabilities	$'000	7,405	5,579	2,240	2,920	2,371	844	24	21,383
	Assets	$'000	3,945	3,363	1,425	1,586	2,141	333	1	12,793
1963–64	Number . .		772	631	271	629	241	128	6	2,678
	Liabilities	$'000	7,774	5,993	1,800	3,291	1,142	545	97	20,642
	Assets	$'000	3,192	2,647	1,609	2,009	509	264	61	10,292
1964–65	Number . .		798	613	255	633	308	96	1	2,704
	Liabilities	$'000	5,937	6,343	2,041	3,507	1,610	405	6	19,850
	Assets	$'000	2,829	2,088	1,165	1 879	598	190	..	8,749
1965–66	Number . .		818	594	262	592	277	106	4	2,653
	Liabilities	$'000	6,633	7,223	2,115	3,144	3,231	624	28	22,998
	Assets	$'000	3,713	4,125	1,175	1,709	2,470	222	8	13,421

(a) Includes the Australian Capital Territory.

Police

The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens, and inspectors under the fisheries and various other Acts. In metropolitan and large country areas they also regulate the street traffic. With the exception of the Commonwealth Police Force and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State Governments, but their members perform certain functions for the Commonwealth Government, such as acting as aliens registration officers and policing various Acts and Regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force in each State and Territory and the number of persons to each police officer are shown in the following tables for the years 1962 to 1966. The figures include traffic and water police, probationers, cadets, special constables, and women police, but exclude ancillary staff, i.e. parking police, native trackers (Aborigines employed in outlying districts in tracking lost persons and persons wanted by the police), female searchers, wardresses, interpreters, and civilian staff, e.g. clerks, typists, artisans, cleaners, etc. Details of ancillary and civilian staff are provided separately. The figures of ancillary and civilian staff shown below vary from State to State because of administrative differences in the allocation to the police of certain functions such as parking control, motor registration and licensing.

STRENGTH OF POLICE FORCES: STATES AND TERRITORIES, 1966

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Strength(*a*)	6,517	4,529	2,975	1,994	1,319	619	157	186	18,296
Population to each officer	649	710	558	547	633	600	237	516	631
Number of policewomen(*b*)	70	61	15	46	19	11	8	4	234
Number of native trackers(*c*)	4	1	11	..	..	..	33	..	49
Ancillary staff—									
Full time	141	7	22	138	..	59	33	..	400
Part-time	..	..	..	4	24	..	..	..	28
Civilian staff—									
Full time	529	562	243	74	151	65	11	21	1,656
Part-time	..	50	20	8	10	7	..	1	96

(*a*) Excludes ancillary and civilian staff. (*b*) Included in strength. (*c*) Included in ancillary.

STRENGTH OF POLICE FORCES AND POPULATION TO EACH OFFICER STATES AND TERRITORIES, 1962 TO 1966

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Strength—									
1962	5,687	4,216	2,748	1,727	1,164	579	125	101	16,347
1963	5,826	4,291	2,798	1,752	1,184	629	137	115	16,732
1964	5,977	4,389	2,818	1,830	1,260	598	149	135	17,156
1965	6,151	4,466	2,810	1,926	1,277	633	155	165	17,583
1966	6,517	4,529	2,975	1,994	1,319	619	157	186	18,296
Population to each officer—									
1962	699	725	561	573	648	617	222	650	659
1963	695	712	560	576	652	574	215	639	653
1964	689	713	564	564	627	609	217	596	649
1965	682	718	573	547	631	578	225	537	656
1966	649	710	558	547	633	600	237	516	631

Commonwealth Police Force

The Commonwealth Police Force commenced operations on 21 April 1960, and is the principal agency for the enforcement of the laws passed by the Commonwealth Parliament. It is also responsible for the protection of Commonwealth property and interests at various buildings and establishments under the control of the Commonwealth. This force co-ordinates the work of other Commonwealth investigation and law enforcement agencies and acts on behalf of the United Nations Organization for the suppressing of traffic in women and the suppression of obscene literature.

Under the control of the force is the Australian Police College at Manly, New South Wales, which provides training for officers of various police forces and other agencies in Australia and New Zealand. The force has its Head Office in Canberra and District Offices in each Capital City. The strength of the force at 30 June 1966 was 627 policemen and 3 policewomen. At that date there were, in addition, 60 civilian employees.

Prisons

Prisons and prison accommodation

The table below shows the number of prisons in each State and the Northern Territory and the accommodation therein at 30 June 1965.

PRISONS AND PRISON ACCOMMODATION: STATES AND NORTHERN TERRITORY, 1965

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia
Prisons	18	13	7	14	19	1	2	74
Accommodation	3,100	2,347	1,158	1,022	1,048	404	111	9,190

There is no gaol in the Australian Capital Territory, but there is a lock-up attached to the police station at Canberra and another lock-up at Jervis Bay where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by a magistrate's court. Long-term prisoners from the Australian Capital Territory normally serve their sentences in New South Wales prisons.

Convicted prisoners

The number of convicted prisoners at 30 June of each of the years 1961 to 1965 and the proportion per 10,000 of the population are shown in the following table.

CONVICTED PRISONERS: STATES AND TERRITORIES, 1961 TO 1965

30 June—	N.S.W. (a)	Vic.	Qld (b)	S.A. (b)	W.A. (b)	Tas. (b)	N.T. (b)	Australia
Number—								
1961	3,086	1,827	877	592	526	237	41	7,186
1962	3,051	1,844	843	658	573	207	49	7,225
1963	3,043	1,942	879	688	640	231	48	7,471
1964	3,090	1,981	796	658	662	232	49	7,468
1965	2,957	1,879	944	706	573	210	62	7,331
Per 10,000 of population—								
1961	7.8	6.2	5.8	6.1	7.1	6.8	15.1	6.9
1962	7.5	6.1	5.4	6.6	7.6	5.7	17.6	6.7
1963	7.4	6.3	5.5	6.8	8.3	6.3	16.3	6.8
1964	7.5	6.3	6.0	6.3	8.3	6.3	15.1	6.7
1965	6.9	5.9	5.8	6.6	7.0	5.7	17.8	6.5

(a) Includes the Australian Capital Territory. (b) Excludes Aborigines.

Patents, trade marks and designs

Patents

Patents for inventions are granted under the *Patents Act* 1952–1966, which applies to the Commonwealth of Australia and the Territories of Norfolk Island, Papua and New Guinea. The Act is administered by a Commissioner of Patents. The principal fees payable up to and including the grant of a patent amount to $39. Renewal fees are payable as follows: $10 before the expiration of the fourth year, and an amount progressively increasing by $2 before the expiration of each succeeding year up to the final fee of $32, payable before the expiration of the fifteenth year. An extension of time for six months for payment of a renewal fee may be obtained.

PATENTS: AUSTRALIA, 1962 TO 1966

	1962	1963	1964	1965	1966
Applications	13,026	13,051	14,134	15,150	16,007
Applications accompanied by provisional specifications	3,710	3,557	3,603	3,783	3,853
Letters patent sealed	3,866	5,361	5,456	7,277	6,140

Trade marks and designs

Under the *Trade Marks Act* 1955–1966 the Commissioner of Patents is also Registrar of Trade Marks. Provision is made for the registration of users of trade marks and for their assignment with or without the goodwill of the business concerned. A new classification of goods was adopted in 1958, and trade marks registered under repealed Acts are reclassified on renewal. Under the *Designs Act* 1906–1966 the Commissioner of Patents is also Registrar of Designs.

TRADE MARKS AND DESIGNS: AUSTRALIA, 1962 TO 1966

	1962	1963	1964	1965	1966
Trade Marks—					
Received	5,920	6,411	6,280	6,583	6,714
Registered	3,558	4,224	3,606	3,256	3,272
Designs—					
Received	1,392	1,425	1,572	1,567	1,523
Registered	1,064	1,251	1,287	1,260	642

Copyright

Copyright is regulated by the Commonwealth *Copyright Act* 1912–1966 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law. The Act is administered by the Commissioner of Patents.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America, under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order-in-Council which came into operation on 1 February 1923 and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

COPYRIGHT: AUSTRALIA, 1962 TO 1966

	1962	1963	1964	1965	1966
Applications lodged . . .	1,162	1,265	1,360	1,438	1,291
Applications registered . .	1,224	1,146	1,275	1,277	1,113

Cost of administration of law and order

Expenditure by the States

The tables following show the net expenditure (i.e. gross expenditure less receipts from fees, fines, recoups for services rendered, etc.) from Consolidated Revenue in connection with the administration of justice, police and prisons. The figures exclude Loan Fund expenditure and expenditure on debt charges, pay-roll tax and superannuation payments. Because of differing legislative and administrative arrangements in the various States, the activities covered by the figures shown are not exactly the same in each State. Small differences also result from differing accounting practices. However, the figures shown for individual States are comparable from year to year.

STATE NET EXPENDITURE ON LAW AND ORDER, 1965–66

State	Net expenditure			Per head of population		
	Justice	Police	Prisons (*a*)	Justice	Police	Prisons
	$'000	$'000	$'000	$	$	$
New South Wales	5,521	22,919	3,962	1.31	5.45	0.94
Victoria	294	18,898	2,403	0.09	5.92	0.75
Queensland	*b* −223	11,771	1,416	*b* −0.14	7.14	0.86
South Australia	*b* −1,176	6,941	1,182	*b* −1.09	6.44	1.10
Western Australia	608	5,209	774	0.74	6.31	0.94
Tasmania	612	2,394	545	1.66	6.48	1.48
Total	**5,636**	**68,132**	**10,282**	**0.50**	**6.02**	**0.91**

(*a*) Excludes expenditure on reformatories, which amounted to: N.S.W., $2,003,853; Vic., n.a.; Qld, $91,480; S.A., $393,071; W.A., $580,611; Tas., $149,974. (*b*) Receipts for fines, legal fees and registrations exceed expenditure.

STATE NET EXPENDITURE ON LAW AND ORDER
AUSTRALIA, 1961-62 TO 1965-66
($'000)

Year	Justice	Police	Prisons(*a*)
1961–62	5,253	52,977	8,153
1962–63	5,845	55,450	8,248
1963–64	5,508	60,051	8,462
1964–65	5,549	64,338	10,633
1965–66	5,636	68,132	10,282

(*a*) Excludes expenditure on reformatories, which amounted to: 1961–62, $2,707,744; 1962–63, $2,415,112; 1963–64, $2,944,662; 1964–65, $1,970,083; 1965–66, $3,218,989. Expenditure on reformatories in Victoria is not included in these amounts.

Commonwealth expenditure

Since the functions of the Commonwealth Government in the administration of law and order differ considerably from those of the States, precise comparison between Commonwealth and State expenditure in this field is not possible. The following tables show expenditure by the Commonwealth Government on the services it performs in relation to law and order.

COMMONWEALTH EXPENDITURE ON LAW AND ORDER, 1965-66
($'000)

	Gross expenditure	Receipts	Net expenditure
Justice—			
Administration	1,203	531	672
Bankruptcy	653	491	162
Crown Solicitor's Office	1,322	. .	1,322
High Court	248	. .	248
Judges' salaries and pensions	233	. .	233
Rent	259	. .	259
Court reporting	516	206	310
Territory courts	475	300	175
Repairs and maintenance	70	. .	70
Total, justice	*4,979*	*1,528*	*3,451*
Police—			
Commonwealth Police Force	1,302	. .	1,302
Australian Police College	79	. .	79
Australian Security and Intelligence Organization	1,990	. .	1,990
Northern Territory Police	859	. .	859
Australian Capital Territory Police . . .	924	. .	924
Total, police	*5,154*	. .	*5,154*
Prisons—			
Northern Territory prisons	230	. .	230
Total, prisons	*230*	. .	*230*
Total, law and order	**10,363**	**1,528**	**8,835**

COMMONWEALTH EXPENDITURE ON LAW AND ORDER 1961-62 TO 1965-66
($'000)

Year	Gross expenditure	Receipts	Net expenditure
1961–62	6,482	823	5,659
1962–63	7,150	946	6,203
1963–64	8,280	1,220	7,061
1964–65	9,342	1,236	8,106
1965–66	10,363	1,528	8,835

CHAPTER 16

PUBLIC HEALTH

STATE GOVERNMENT ACTIVITIES

(Includes activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory)

Public health legislation and administration

New South Wales

The New South Wales Ministry of Health, which is under the control of the Minister for Health, embraces the Department of Public Health, the Hospitals Commission, and a number of boards, committees and other authorities concerned with health, hospitals and associated services. The *Department of Public Health* undertakes a variety of activities concerned with the prevention of disease and the promotion of the public health of the community. Many of its activities have been decentralised to Medical Officers of Health in the eight health districts into which the State is divided. The principal activities of the Department are described below.

The Bureau of Maternal and Child Health has established pre-natal clinics (for expectant mothers living long distances from obstetric hospitals), baby health centres (where mothers are instructed in the care and management of babies), and paediatric clinics (for pre-school children). It controls the school medical services and conducts a number of child health centres (*see* page 551). Assistance with the control of staphylococcal infection and the care of premature babies is given to obstetric hospitals and medical practitioners. A free consultant service is available to medical practitioners who request specialist advice in difficult obstetric cases. A special medical committee investigates every maternal death occurring in the State.

The Division of Occupational Health is concerned with all health problems associated with industry. Some of the more important aspects with which the Division is concerned are the effects of toxic substances in industry and pesticides in agriculture, the suitability of protective devices, ergonomics, and radiation hazards. The Division is also concerned with the industrial and residential aspects of noise and air pollution.

The Division of Dental Services provides dental services for children in infant and primary school classes and for patients in Government institutions.

Infectious diseases. Many diseases have been proclaimed as infectious diseases, and cases of these diseases must be notified by medical practitioners to the public health authorities. *The Division of Tuberculosis* co-ordinates measures for the prevention, detection and cure of tuberculosis, regulates the admission of patients to institutions, arranges for the treatment of patients not in institutions, and assesses the medical eligibility of applicants for Commonwealth tuberculosis allowance. *The Division of Epidemiology* is responsible for the collation and dissection of the notifications of infectious diseases under the Public Health Act. It also administers the Venereal Diseases Act and conducts an examination and treatment clinic for men. The Department has directed the anti-poliomyelitis campaign in New South Wales and is responsible for the distribution of Sabin poliomyelitis vaccine.

Psychiatric services. The Department supervises the care, treatment, and control of persons suffering from mental disorders, and conducts fourteen psychiatric centres for the psychiatrically ill, and a diagnostic centre for mentally retarded children. An out-patient clinic service is provided at the admission centres attached to four of the psychiatric hospitals and also at a number of public hospitals. Community services and residential facilities, including an out-patient and in-patient diagnostic centre, are also provided for the prevention, diagnosis and treatment of mental retardation.

Hospital services. The Health Department supervises the operation of private hospitals and rest homes, which must be licensed under the Private Hospitals Act and must comply with regulations as to structure, management and inspection of premises. The Department also maintains six State hospitals and homes, which provide care and treatment for the aged and those chronically ill.

Other activities. The Department maintains laboratories which provide analytical services for governmental authorities and private bodies and provide a comprehensive clinical pathology service free of charge to all public and State hospitals and to medical practitioners attending patients unable to afford the fees of a private pathologist. It administers the Pure Food Act (which prescribes standards of quality and purity for food products) and laws relating to sanitation. It also supervises the work of local government authorities relating to public health matters. The Department also provides specialised services through the *Division of Forensic Medicine* which incorporates a medico-legal section.

The Hospitals Commission supervises the public hospital services, which are organised in terms of the Public Hospitals Act.

The public hospitals and organisations which provide district and bush nursing services and aerial medical services are classified by the Public Hospitals Act into two main groups. One group, termed the *incorporated hospitals*, consists entirely of hospitals incorporated under the Act. The second group, known as *separate institutions*, includes hospitals incorporated under special Acts of Parliament, hospitals conducted under the aegis of religious organisations, and hospitals registered under the Companies Act as non-profit organisations. Most of the incorporated hospitals are managed by a board of directors appointed by the Governor, but the management of the hospital is subject to inspection by the Hospitals Commission. The Commission determines which hospitals are to be subsidised and the amount of subsidy to be paid to each instutition.

Other State authorities concerned with health, hospital and associated services in New South Wales include the Master in the Protective Jurisdiction of the Supreme Court (who controls and administers the estates of temporary and continued treatment patients in psychiatric hospitals), the Ambulance Transport Service Board (which supervises district ambulance services throughout the State), boards established for the registration of practitioners in certain professions (chiropody, dental, medical, nursing, optometry, optical dispensing, pharmacy, and physiotherapy), the State Cancer Council (for cancer education and research), and various boards and committees (e.g. the Board of Health, the Poisons Advisory Committee and the Air Pollution Advisory Committee).

Victoria

All health, hospital and associated services either administered directly or supported financially by the Government are under the control of the Minister of Health. The *Department of Health*, set up under the *Ministry of Health Act* 1943, assists the Minister in carrying out the various duties imposed upon him by a variety of Acts associated with health. Included in the Department are four main service branches—the General Health Branch, the Maternal and Child Welfare Branch, the Tuberculosis Branch, and the Mental Hygiene Branch.

The General Health Branch which, *inter alia*, is the administrative branch for the Commission of Public Health, protects or promotes the health of the community in the following ways. The Engineering Division scrutinises from a public health point of view the plans of all public buildings and provincial sewerage installations and makes periodical inspections. Other activities include prevention of air pollution from industrial sources, prevention of stream pollution, and supervision of abattoirs and cattle sale yards. The Poliomyelitis Division provides a comprehensive orthopaedic, physiotherapy, and respirator service for all eligible patients and carries out rehabilitation in conjunction with the Commonwealth Government. Facilities developed for poliomyelitis are now being used for other neurological disorders. The Division is also concerned with the Salk immunisation campaign being undertaken in Victoria. Through the municipalities, immunisation against poliomyelitis, diphtheria, smallpox, whooping cough, and tetanus is encouraged and supervised. Prevention and control of infectious diseases are functions of this Branch, which also sponsors original research into virus diseases and epidemiological investigations throughout Victoria. The Venereal Diseases Division provides a centrally situated headquarters where the use of modern remedies is effecting a general improvement in the standard of treatment. Standards of quality and purity of foods and drugs are fixed by the Food Standards Committee and are administered and enforced by both departmental and municipal health inspectors. Investigations into occupational hazards to the health of workers, the treatment and incidence of occupational diseases, and research into the effects of toxic substances used in industry are conducted by the Industrial Hygiene Division. The Poisons Control Division is responsible for administering the law relating to poisons and deleterious substances. Legislation provides for extensive control, particularly at the wholesale (manufacturing and import) level. Control is exercised by a system of licences and permits.

Subsidies are granted to municipalities to provide meals for pensioners, to clubs for elderly citizens, and to emergency housekeeper services. Other services operated by the Branch are: registering plumbers and gasfitters; providing free travel to hospital for people with limited incomes; analysing food, drink, water, and sewerage effluents; registering cinematograph operators; administering the Cemeteries Acts; and advising industry on health hazards associated with handling radio-active substances.

The Maternal and Child Welfare Branch is concerned with pre-natal hygiene, infant welfare, the development of pre-school services, and the school medical and dental services.

The Tuberculosis Branch is concerned with the prevention of tuberculosis and the treatment and rehabilitation of tubercular patients. It controls the compulsory chest X-ray programme introduced in October 1963.

The Mental Hygiene Branch is controlled by the Mental Health Authority, appointed in 1951, and consists of institutions for in-patient care, out-patient's clinics, and other services necessary for a comprehensive community mental health programme.

The *Victorian hospital system* comprises both public and private hospitals. Since their inception in 1846, Victorian public hospitals have maintained a distinctive pattern. Firstly, they are managed by autonomous committees elected by contributors—following closely the practice applying in the United Kingdom prior to the introduction of the National Health Service. Secondly, they have received financial assistance by way of Government subsidies. With rising costs, this has steadily increased in amount and proportion. At present, hospitals in Victoria derive some 70 per cent of their income from Government sources. Thirdly, medical staffing has followed the pattern of honorary service. In recent years this has been supplemented by salaried doctors employed in university teaching and hospital departments.

Patients are broadly separated into two groups according to an income test. Those earning below a determined level of income are eligible for public hospital care at a fee of approximately half the actual cost; medical care is free through the honorary system. Those patients whose incomes are above the level prescribed are required to pay intermediate or private hospital accommodation charges at higher rates, but only rarely does the charge cover cost; they must, in addition, meet medical fees.

The *Hospitals and Charities Commission* was established by the 1948 Hospitals and Charities Act as the authority, under the Minister of Health, for the payment of State Government subsidies to public hospitals and other registered charitable organisations. It exercises a close scrutiny of all these organisations, particularly their financial activities. The Commission also has responsibility for co-ordinating hospital and institutional activities throughout the State. In country areas inter-hospital co-operation has led to the development of a regional organisation to give specialised services at a reasonable cost. Pathology, radiology, blood banks, and various types of therapy are provided from base hospitals to the smaller local hospitals with staff available on a visiting or consultant basis. Equipment is sent to small hospitals as they need it. This system has considerably improved the standard of medical services available in the country areas. The scheme also embraces central laundry and linen service, and engineering service to small hospitals.

The Commission co-operates with universities in developing teaching hospital programmes. Ten general and special teaching hospitals are established. These are affiliated with medical schools of the University of Melbourne and Monash University. Expansion of these teaching facilities is still progressing, with major work currently in progress at all hospitals. Discussions are advanced concerning the establishment of the eleventh teaching hospital, which is to be erected on Monash University Campus.

Attention is given to the medical and social care of the aged. Emphasis has been placed upon the development of geriatric units, rehabilitation services, hostels for the aged, day hospitals, and supporting domiciliary services.

There are more private than public hospitals in Victoria, but they are smaller in size. Their bed capacity is about 30 per cent of the total hospital accommodation available to the community. The Hospitals and Charities Commission registers these hospitals and ensures that adequate architectural, staffing and nursing standards are maintained. Medical, surgical, midwifery, convalescent, and chronic patients are accommodated in various private hospitals.

The Commission's authority covers the ambulance services in Victoria. Here again emphasis has been placed upon the development of regional services in all areas of the State. This has resulted in a scheme developed along lines similar to that operating among hospitals; however, individual ambulance stations have been merged into one regional controlling organisation, whereas within the public hospital regional scheme each hospital still maintains its own autonomy. This type of ambulance organisation leads to low operating costs and high standards of staff and equipment. A recent development is an air ambulance service which provides regular and emergency services for most parts of the State, enabling seriously ill patients to be transported to major metropolitan hospitals with minimum delay and inconvenience.

Queensland

'*The Health Acts* 1937 *to* 1966' are administered by the Director-General of Health and Medical Services, subject to the Minister for Health. A central staff controls the following divisions.

The Division of Public Health Supervision is controlled by the Deputy Director-General of Health and Medical Services, and comprises separate sections for communicable desease control, environmental sanitation, food and drug control, enthetic (venereal) diseases, hookworm control and Hansen's disease (leprosy) control. Free treatment of venereal diseases is offered at the Department's clinics in Brisbane and at any public hospital. Free immunisation against poliomyelitis, diphtheria, whooping cough, tetanus, and smallpox is offered by most of the local authorities, and the majority of school children are immunised against diphtheria, whooping cough, tetanus, and poliomyelitis.

The Division of Tuberculosis controls a central chest clinic in Brisbane which offers skin tests, X-ray examinations and B.C.G. vaccination of skin negative reactors free of charge. Similar clinics are situated at the Cairns, Rockhampton, Thursday Island, Toowoomba, and Townsville district hospitals. Children in the eighth grade of school are skin tested and given B.C.G. vaccine. The division controls the compulsory X-ray examination of all persons over the age of twenty-one years. The survey is a continuous one and is conducted from mobile units, a specially equipped unit being used in the far northern, western and south-western districts, where electric power is not available.

The services of the *Division of Industrial Medicine* are available both to industry and to the trade union movement for the prevention of industrial hazards. The Division is particularly interested in occupational diseases, such as silicosis and lead and other poisoning, and advises on industrial problems such as lighting, ventilation, fatigue, hearing loss, and the use of radiation and radio-active isotopes.

The Division of Maternal and Child Welfare offers supervision and advice on the rearing and health of infants and pre-school children at 270 infant welfare centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich, and Rockhampton.

The Division of School Health Services comprises the Chief Medical Officer, School Health Services, and a staff of doctors, dentists and visiting school nurses. Medical inspections are made at primary schools throughout the State approximately annually. Teacher trainees are also medically examined. During 1965–66 school dental officers visited 426 schools.

In the *Division of Mental Health* the Director of Psychiatric Services is associated with the planned integration of services. Mentally ill persons requiring special care are admitted to the State's four special hospitals at Brisbane, Toowoomba, Ipswich and Charters Towers. In the metropolitan area of Brisbane, out-patient, day hospital and in-patient care is provided by general hospitals and a community-based Psychiatric Clinic. The Brisbane General, Chermside, and Princess Alexandra Hospitals all provide psychiatric services. Regional development of services is based on general hospital services at Townsville, Rockhampton, Toowoomba, and Ipswich. Special care for epileptics is provided at a home in Toowoomba.

The Division of Welfare and Guidance has clinics for the diagnosis and management of emotional and behaviour disorders in children in the Greater Brisbane Area. Further clinics are planned for Townsville and Toowoomba. A part-time clinic functions in Toowoomba at present. The Wilson Youth Hospital has been opened for the social and psychiatric rehabilitation of boys convicted in the Children's Court. About forty boys can be accommodated. There is an out-patient section which girls also can attend. A Child Guidance Unit for out-patients, day-hospital patients and thirty in-patients is being constructed in the grounds of the Brisbane Children's Hospital. A similar unit is at present being planned for Townsville.

It is the policy of the Department, through the *Division of Social Work*, to establish social work services, where possible, in all relevant aspects of the health, medical and hospital services. Through these services patients in hospitals and sick, elderly and disabled persons in the community may receive assistance with their personal and social problems. Social work departments have been established in the major hospitals in Brisbane and in four country hospitals, and social workers have been appointed to work in health, psychiatric and child welfare, and guidance services. Development of this work is co-ordinated through the Division, and the Adviser in Social Welfare acts as official liaison officer with other State Government Departments as services relating to social work and family welfare are established.

The Division of Geriatrics controls a geriatric unit established at Princess Alexandra Hospital. The unit consists of two wards with accommodation for 128 in-patients, administration section, day hospital, and physio-therapy and occupational therapy departments.

The Division of Laboratory Services maintains two laboratories—the Laboratory of Microbiology and Pathology and the Government Chemical Laboratory—to ensure the purity of a wide range of foodstuffs and materials. The former also offers a service in clinical pathology to institutions, country hospitals and private doctors, and provides a medico-legal service for the whole State. A diagnostic virus laboratory has been established within the Laboratory of Microbiology and Pathology. The Institute of Forensic Pathology is controlled by the medical staff of the Laboratory of Microbiology and Pathology, and coroners' autopsies are conducted there.

All *public hospitals* in Queensland operate under the district system, which provides for the constitution of hospitals regions and hospitals districts, and a hospitals board for each district. The State is divided into eleven hospitals regions with a base hospital for each region except Moreton which has two, both within the capital city of Brisbane. Each region comprises a number of hospitals districts, the purpose of the regional scheme being to co-ordinate the public hospitals in the region with the base hospital. The administration of the hospital services, including public dental services, in each hospitals district is vested in the hospitals board, which comprises not less than four nor more than eight members appointed by the Governor-in-Council, and one member elected by the component local authorities. During 1964–65 there were sixty hospitals boards controlling 137 public hospitals, nine of which treated out-patients only. In addition, twenty-six other hospitals, six of which are treated as public hospitals, received aid from the Government, and an institution for the treatment of Hansen's disease in Aborigines was maintained at Fantome Island near Townsville. Other persons suffering from this disease are treated at an annexe of the Princess Alexandra Hospital, South Brisbane.

South Australia

The first Health Act in South Australia was passed in 1873. This Act, which was modelled on earlier English legislation, established a Central Board of Health, and a number of town councils were constituted as local boards. Regulations were concerned mainly with improved sanitation and the checking of 'epidemic, endemic and contagious diseases'. Amendments to this Act followed in 1876 and 1884, and a fourth Act, replacing earlier legislation, was passed in 1898. The present Health Act dates from 1935. Administration was continued under the authority of the Central Board of Health until 1949, when the Department of Public Health was formed to co-ordinate the work of the Board and other health activities.

The *Department of Public Health* embraces the activities of the Central Board of Health, the School Health Branch (including the Deafness Guidance Clinic and the training school for school dental therapists), the Poliomyelitis Branch, the Food and Drugs Advisory Committee, the Radiological Advisory Committee, the Clean Air Committee, and also the public health aspects of the control of tuberculosis, including the chest clinic and the State X-ray health surveys. The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouse Registration, and Notification of Births Acts. The Board also has responsibilities under the Local Government Act and the Cremation Act. The Health Act and the Food and Drugs Act constitute every municipal or district council a local board of health or local authority for its area, except that in the metropolitan area the Metropolitan County Board (representing all metropolitan corporations) is the local authority under the Food and Drugs Act. The Central Board of Health acts as a supervisory body over all the 143 local boards under the Health Act, the Food and Drugs Act, and the Bakehouse Registration Act. It has concurrent jurisdiction with local boards. Outside the boundaries of local boards the Central Board is the administering authority.

The State Government conducts a chest clinic and a tuberculosis hospital in the metropolitan area. At the chest clinic patients are examined and treated, suspected cases are investigated, and contacts are advised of precautionary measures and periodically re-examined. The Morris Hospital, Northfield, with eighty-six beds, cares for the tuberculosis patients received from the chest clinic. The Kalyra Sanitorium at Belair, with seventy beds, is conducted by the James Brown Memorial Trust Inc. for tuberculosis sufferers.

The *Hospitals Department* administers three general hospitals in the metropolitan area—Royal Adelaide Hospital, the Queen Elizabeth Hospital and Morris Hospital (tuberculosis). In the country there are *government hospitals* at Port Pirie, Mount Gambier, Port Lincoln, Port Augusta, Wallaroo, and Barmera. In addition there are fifty *other hospitals* in country areas conducted by local boards of management, which receive maintenance subsidies from the State Government and come under the general supervision of the Hospitals Department. The Mental Health Services, a division of the Hospitals Department, is responsible for the management of public psychiatric services.

There are several large *private hospitals* in the metropolitan area, including Calvary Hospital, the Memorial Hospital and St. Andrew's Presbyterian Hospital, all of which are run by denominational bodies. Another large institution is the Home for Incurables at Fullarton, which provides accommodation and nursing attention for persons suffering from chronic disease.

Western Australia

The central health authority is the *Department of Public Health*, administered by a Commissioner who must be a medical practitioner. The Commissioner is responsible for the administration of several important Statutes, including the Health Act, Radioactive Substances Act, Poisons Act, Clean Air Act, Anatomy Act, Cremation Act, and the Optical Dispensers Act.

The Health Act is comprehensive in scope. In the administration of its general sanitary provisions, including food and drug administration, the registration of lodging houses, eating houses and offensive trades, local health authorities are subject to the overriding authority of the

Commissioner. The Act provides for the construction of sewerage schemes in certain areas and confers on the Commissioner the powers necessary for the registration of private hospitals, the licensing of maternity homes and the supervision of construction and safety of public buildings. Infectious diseases are notifiable under the Act, and the Commissioner is empowered to isolate infected persons. The Maternal Mortality Committee, which was constituted under the Act, is given statutory power to investigate the circumstances of each maternal death.

In 1965 the Department took over the administration of the Poisons Act from the Pharmaceutical Council. The existing Statute provides for all poisons to be classified in eight schedules closely conforming to the recommendations of the National Health and Medical Research Council.

The Department has several major branches comprising the Public Health Laboratories, the Child Health services, the School Medical and Dental Services, the Tuberculosis Control Branch and the divisions of Epidemiology and Occupational Health.

A special feature of the Department's administration is the existence of a State Health Council. This Council is non-statutory and comprises representatives of all major groups within the medical profession, including nominees of the Faculty of Medicine of the University of Western Australia. The Council's advice is sought on many matters of professional and public health importance. It has four standing committees—the Hospital Requirements Committee, the Mental Health Committee, the Dental Health Committee, and the Maternal and Infant Health Committee.

Government and government-assisted hospitals in Western Australia operate under the *Hospitals Act, 1927–1955*, which is administered, subject to the direction of the Minister for Health, by the Medical Department. For administrative purposes a hospital under the direct control of the Medical Department is classified as 'departmental' and is financed from State funds. A hospital classified as a 'Board' hospital has its own board of management and is subsidised by the State Government. In all, forty departmental and fifty-six Board hospitals were located throughout the State at 30 June 1966.

In addition to the government hospitals there are a number of *private general and maternity hospitals* which are registered and inspected by the Department of Public Health. The principal private hospitals are those established by religious bodies in the metropolitan area and the main country towns.

All *mental hospitals* in Western Australia are administered by a Director of Mental Health Services responsible to the Minister for Health. In addition to the major mental hospitals there are day hospitals, out-patient clinics and a child guidance clinic. A new Mental Health Act came into force on 1 July 1966.

Tasmania

The State *Department of Health Services* is under the jurisdiction of the Minister for Health, with the Director-General of Health Services as the permanent head. The Headquarters of the Department controls three Divisions, each under a Director, namely, Public Health, Psychiatric Services and Tuberculosis. Three specialised services are also part of the Department, namely, the State Health Laboratory under the control of the Director of Pathology, the Government Analyst and Chemist Laboratory under the control of the Government Analyst, and the School Dental Health Service under the control of the Deputy Director-General of Health Services.

Administrative Headquarters. The responsibilities of the headquarters of the Department of Health Services include the public hospital services and the licensing of private hospitals and other medical establishments under the *Hospital Act* 1918; the District Medical Service; Geriatric Services; the School Dental Health Service; the Tourist and District Nursing Services; legislation concerned with health and allied matters; the Nurses' Registration Board and Dental Mechanics' Registration Board; some specialist medical services; the statistical classification of public hospital morbidity and mortality; the State Drug Advisory Committee; liaison with the Health Departments of other States and the Commonwealth; the Hospital Employees' Award, the Medical Officers' Award, and the Nurses' (Public Hospitals) Award; the control and maintenance of Crown property occupied by various sections of the Department; and the appointment and salaries of staff who are not officers of the Public Service.

The *Division of Public Health* has responsibility for the preventive medical services of the State. The Director is responsible for the operation of the *Public Health Act* 1957 and the control of medical officers of health and other health officers employed by the Department and by municipalities throughout the State. A major responsibility is public immunisation campaigns, conducted through the municipal councils (preparations distributed include the Salk and Sabin anti-poliomyelitis vaccines and the triple antigen vaccines against whooping cough, tetanus and diphtheria). The Division is also responsible for the Child Health Service, the School Medical Service, the Mothercraft Home, the Health Education Council, the Nutrition Advisory Service, industrial hygiene, environmental sanitation, pure food and pure drug quality control, public health aspects of the building regulations, infectious diseases control, and the National Fitness service.

The *Division of Psychiatric Services* controls the major psychiatric rehabilitation hospitals and provides regional clinical psychiatric facilities and the specialists employed, including social workers. Some services operate at the general hospitals, while others, such as the child psychiatric unit and the alcoholic rehabilitation service, are established separately. Day hospital facilities are available, and a clinic is maintained at the Division of Public Health in Hobart. The *Mental Health Act* 1963 superseded previous legislation and is based on the modern theory that a mental health institution should be a true hospital, where the majority of patients attend voluntarily and where there should be a high turn-over of short-stay patients who are given intensive treatment. Application of this principle has had the effect of reducing the number of patients compulsorily detained from about 75 per cent of the total psychiatric hospital patient population to about 25 per cent.

The *Division of Tuberculosis* is concerned with the prevention of tuberculosis in the State. It administers compulsory mass chest X-ray services throughout the State, four chest clinics and two chest hospitals.

The *State Health Laboratory* provides certain pathological services to hospitals and doctors and special bacteriological and cytological services in connection with public health and the anti-cancer campaign.

The *Government Analyst and Chemist Laboratory* is a public laboratory for the chemical analysis of a wide variety of foods, drugs and other substances and undertakes work for Government Departments and the public.

State controlled hospitals, for which the State accepts the major financial responsibility, are controlled either directly or through Hospital Boards each consisting of seven members, of whom five are appointed by the Minister. They include four general hospitals, sixteen district hospitals, twelve district nursing centres with bed accommodation, two mental hospitals, two maternity hospitals, two chest hospitals, and three homes for the aged. Under the 'personal patient' scheme a patient in a State-controlled hospital may have his own doctor, if the latter is an honorary doctor at the hospital, for the payment of an additional fee.

Private hospitals are operated by church and other private organisations. There are seven licensed to receive surgical, medical or maternity cases. Nursing homes and rest homes are institutions which do not conform to private hospital specifications with regard to equipment, construction and staffing, as laid down under the Hospitals Act, and treat general cases within limits as specified in the licence. There are thirty-three private institutions concerned with aged people, two for those with incurable or chronic illnesses, two for general convalescence, and two for retarded children.

The *Ambulance Commission of Tasmania* co-ordinates ambulance services through four Ambulance Boards and is responsible to the Minister for Health for seeing that they operate effectively. The Royal Flying Doctor Service was established in 1960 and operates with the ambulance services to bring remote patients to the Royal Hobart or Launceston General Hospitals.

Northern Territory

The *Commonwealth Department of Health* provides health services in the Northern Territory which include hospital, medical and dental services.

Four general hospitals have been established, and at 31 December 1966 the available accommodation for in-patients was as follows: Darwin Hospital, 316; Alice Springs Hospital, 147; Katherine Hospital, 52; and Tennant Creek Hospital, 35. The treatment of Hansen's disease (leprosy) is carried out at East Arm Settlement. A full range of ancillary services is available at the Darwin hospital, which serves as a base hospital for the Territory. Dental clinics have been set up at Darwin and Alice Springs.

Medical and dental services to outback areas are provided by road and air. The Department of Health has three De Havilland Dove aircraft stationed at Darwin and one at Alice Springs. They are staffed and serviced by Trans-Australia Airlines and are extensively used in ambulance and survey medical work. At Alice Springs medical officers of the Department of Health provide the medical services to the Royal Flying Doctor Service (South Australian base). Public health services are provided, and health inspectors visit all settlements periodically. A section of the Department of Health undertakes continuous investigations into Aboriginal health.

Australian Capital Territory

The A.C.T. *Public Health Ordinance* 1928–1966 places under the control of the Minister for Health matters relating to public health and hygiene in the Australian Capital Territory. In addition to the public health activities normally undertaken by the State Governments, the A.C.T. Health Services Branch of the Commonwealth Department of Health undertakes certain duties which in the States would be the responsibility of local government instrumentalities. This Branch is responsible for all health services within the A.C.T. including hospital development, national fitness, health education and public health measures. It also provides the secretariat for registration of medical practitioners, dentists, pharmacists, optometrists, veterinary surgeons, and nurses in the Territory.

A medical officer of health and a staff of six health inspectors have been appointed to administer the Public Health Ordinance and ancillary regulations. During 1966, 980 licences were issued under various public health regulations, and legal action was taken in six cases for offences against these regulations, The inspection staff is responsible for the quarantine inspection of parcels arriving under bond at the Canberra Post Office, and, in addition, the inspection of plants and animals and the disposal of refuse from aircraft in Canberra as the first port of entry into Australia.

In continuation of the campaign to control the incidence of poliomyelitis, the Department of Health in Canberra during 1966 gave 6,200 injections of poliomyelitis vaccine to infants and school children, and 666 to adults. In September 1966 the Department of Health implemented Sabin oral poliomyelitis vaccination, and by the end of 1966 over 20,000 schoolchildren had received two of their three doses. In addition, over 1,000 adults have started a course of Sabin vaccination.

The *Commonwealth Health Laboratory* in Canberra provides full clinical laboratory services to the Canberra Community Hospital and to private medical practitioners in the Australian Capital Territory and surrounding districts. During 1966, 504,104 tests of human specimens were carried out in connection with 103,025 patients. The *Public Health Laboratory*, located in the Australian Institute of Anatomy, conducts tests on water, milk, meats and other foods, and sewage.

The *Canberra Community Hospital* is administered, subject to the direction of the Minister for Health, by a board consisting of five elected members and three members appointed by the Minister*. At 31 December 1966 the hospital had accommodation for 482 in-patients. In October 1966 the Minister for Health announced plans for the construction of a government controlled 600-bed general hospital in the Woden district and a 200-bed general hospital to be erected and controlled by the Roman Catholic Order of the Little Company of Mary. A site for this hospital has since been selected in the Belconnen district.

The *Canberra Mothercraft Society*, which is subsidised by the Commonwealth Department of Health, administers the Infant Welfare Service in Canberra with a staff of nine triple-certificated nurses. The Queen Elizabeth II Coronation Home for Mothers and Babies, which is under the management of the Society, was opened on 7 January 1963. It is staffed by qualified nursing staff and provides post-natal care for mothers and problem babies. The Home has accommodation for two mothers and nine babies.

The First Assistant Director-General of the *Tuberculosis Division*, Commonwealth Department of Health, in addition to the responsibility of co-ordinating the activities of the States in the national campaign against tuberculosis, is concerned with the prevention, detection, examination, and treatment of tuberculosis in the Australian Capital Territory. In 1966 six cases of tuberculosis were notified in the Australian Capital Territory.

A district nursing service, administered by the Commonwealth Department of Health, was established in 1950 to provide a home-nursing service for the sick and aged. This service, available at the request of a registered medical practitioner, is provided by seventeen sisters, who in 1965–66 made 47,004 visits.

The supervision of the hygiene of dairies and piggeries and the control of the Canberra Abattoir are the responsibility of the veterinary service of the Department of Health. The duties of this service also include the prevention and control of disease in stock and advice to district stock owners, with field diagnosis on a herd or flock basis supported by laboratory confirmation.

Supervision and care of infant life

Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government, local government and private organisations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by infant welfare centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. (Information regarding infant mortality will be found in Chapter 9, Vital Statistics—*see* pages 238–43.) Departments control the boarding-out of the wards of the State to suitable persons. Wherever possible, the child is boarded out to its mother or to a near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children.

Under the provisions of the *Social Services Act* 1947–1966 maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children. A sum of

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* *See also* Appendix.

$30 is payable to the mother in respect of each confinement at which a living or viable child is born if the mother has no other children under sixteen years of age. Where there are one or two other children under sixteen, the amount payable is $32, and where there are three or more other children under sixteen, the amount payable is $35. Where more than one child is born at a birth, the amount of the allowance is increased by $10 in respect of each additional child. More detailed information concerning maternity allowances is given in the chapter Welfare Services.

Nursing activities

Several State Governments maintain institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

Infant welfare centres. The following table gives particulars of the activities of infant welfare centres for the year 1966. The figures relate to all centres, whether permanently staffed or on a temporary or part-time basis. Centres may be located at accommodation specially provided for this purpose or at halls, schools, etc.

INFANT WELFARE CENTRES: STATES AND TERRITORIES, 1966

	N.S.W.	Vic.	Qld (a)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number of centres .	430	674	270	271	71	106	16	32	1,870
Attendances at centres . .	1,058,638	1,379,027	457,956	262,952	240,401	138,304	18,717	43,669	3,599,664
Visits by nurses to homes . .	n.a.	178,395	30,022	36,913	27,312	80,921	5,615	4,994	n.a.

(*a*) Year ended 30 June 1966.

Mobile units are used as centres in some States. The numbers of these in 1966 included in the above table were as follows: Victoria, 5; Queensland, 2; South Australia, 4; Western Australia, 4; and Tasmania, 12.

In the last thirty-five years the number of attendances at the infant welfare centres has increased almost four-fold. The numbers of attendances at five-year intervals since 1930 were as follows: 1930, 919,893; 1935, 1,355,306; 1940, 2,035,299; 1945, 2,927,764; 1950, 3,049,375; 1955, 3,099,233; 1960, 3,482,383; and 1965, 3,598,781.

Bush Nursing Associations. Treatment for mothers and children is also provided by the Bush Nursing Associations. The numbers of centres maintained by the Associations in 1966 were: New South Wales, 18; Victoria, 57; Queensland, 5; South Australia, 33; Western Australia, 17; and Tasmania, 24.

Medical and dental inspection of school children

Medical and dental inspection of school children is carried out in all States, in the Northern Territory and in the Australian Capital Territory. In some States travelling clinics have been established to deal with dental defects.

New South Wales

School medical and dental services in New South Wales are under the control of the State Department of Public Health. The staff of the Child Health and Special Services sections of the Department, which conduct the school medical services and provide respectively diagnostic and supervisory services for atypical children, included in January 1967 sixty-six medical officers, thirteen psychiatrists, ten part-time ear, nose and throat surgeons, an ophthalmologist, twenty clinical psychologists, eighty nurses, seventeen social workers, and twenty-three speech therapists.

The aim of the school medical services is to examine all school children in the State in order to discover any departure from normal health, physical or mental, and to notify the parent or guardian of any need for further investigation or treatment. Annual visits are made to government schools, and also to private schools which have applied for this service, in the metropolitan, Newcastle, and Wollongong areas, and in some of the larger country towns. Children are fully examined at kindergarten or on entry into primary school. Review examinations, with particular emphasis on vision and hearing, are conducted on pupils in fourth grade in primary schools and second, fourth, and sixth forms in secondary schools, and on others who appear to need additional examinations. Excluding review examinations, medical officers of this service examined 91,336 children in 1966. In other country areas there is a scheme for school children to be examined by local medical practitioners under the supervision of local municipal and shire councils.

The Department conducts eight child health centres (seven in the metropolis and one at Newcastle), ten child guidance clinics (nine in the metropolis and one at Newcastle), ten hearing clinics (eight in the metropolis, one at Newcastle and one at Wollongong), most of which have been established at child health centres, and two separate speech therapy clinics. Children in need of treatment other than child guidance or speech therapy are referred to a medical practitioner or to the out-patient department of a public hospital.

In June 1966 the school dental service had a staff of thirty-four dental officers, twenty-six dental assistants, and six dental nurses. The service is provided by dental clinics established in the grounds of three metropolitan and two country public schools, eighteen mobile clinics in country areas, and three dental teams with the Royal Flying Doctor Service (located at Broken Hill). In 1966, 107,814 school children were examined by the school dental service, and 15,553 of these were treated.

Victoria

The School Medical Service is a division of the Maternal and Child Welfare Branch of the Department of Health. It has a full time staff of forty doctors, forty-five nurses and nineteen administrative or office staff. As well, it has a part time staff of three medical officers, three nurses and the following consultants: two paediatricians, two psychiatrists and an ophthalmologist.

The aim of the service is to examine all primary school children in the second year at school and once again during secondary schooling. Children may also be examined at other times on the suggestion of teachers or parents, who suspect that ill health is interfering with school progress. Any disabilities found in children are brought to the notice of their parents who are advised to consult their family doctor for further advice or treatment. School nurses under medical direction visit homes and schools to follow up cases so referred. In co-operation with the Education Department and the Mental Health Authority, children with defects of vision and hearing and those who are mentally backward are assessed for special educational help.

School medical officers and nurses in all their activities seek to improve community and child health, through health education to parents, teachers and teachers in training, and school children. Special programmes are conducted in teachers colleges where, through education and counselling. school medical officers seek to induce positive attitudes to health and healthy living, and to foster the ability of the teacher in training to impart this to children.

The School Medical Service advises the Education Department on medical problems and undertakes all medical assessments in connection with the teaching service, including medical assessment for temporary and permanent appointments, resumption of duty after sick leave, confinement leave, and medical eligibility of teachers for superannuation benefits.

The School Dental Service has an establishment of forty-three dental officers and provides dental attention for children in the metropolitan area at three dental centres, and for a number of country districts by means of fifteen mobile units, including six twin-surgery units. It also provides dental services for children's institutions in and around Melbourne and certain provincial centres. The service is now providing dental attention for some 80,000 primary school children.

Queensland

During 1965–66 medical officers and nurses examined 120,926 school children; 4,985 children had disabilities of which parents were notified and advised to seek attention. In western Queensland local doctors act as part-time ophthalmic surgeons. Advice is given on school sanitation, communicable diseases in schools and health education.

During 1966 school dentists gave treatment to 11,256 school children who resided in areas beyond easy reach of hospital dental clinics. The treatment was carried out at four rail dental clinics and with portable equipment at schools. In addition, school children are treated at hospital dental clinics in the larger towns.

South Australia

State schools within a radius of sixty miles from Adelaide and at five large country centres are visited annually, and the children are medically examined while in grades 1, 4 and 7 in the primary schools and in their second and fourth years in secondary schools. Efforts are made to visit the remaining country schools every three years. when all the children are examined. Students who wish to become teachers are examined on appointment as teaching scholars while still attending secondary schools and again immediately prior to entering the Teachers' College and finally when they leave the College to take up teaching. Courses of lectures in health education are given to all College students.

During 1966, 89,040 children were examined by medical officers in 208 country and 159 metropolitan schools. Of these. 6,731 required treatment for defective vision, 2,848 for defective hearing, and 15,471 for dental disorders. Dentists using mobile vans examined 3,462 school children in country areas where a private dental service was not readily available; children offered treatment in 1966 numbered 3,808, including some who were examined in the previous year; 3,323 accepted and were treated free of charge. There were 3,067 children examined at the

Deafness Guidance Clinic during 1966. Of the 1,481 new patients, 803 were referred to doctors or hospitals for treatment. Educational work was assisted by talks to mothers' clubs and interviews with parents by doctors and dentists, and by home visits and interviews by nurses.

Western Australia

The School Medical Service of the State Health Department employs seven full-time medical officers. Details of this service during 1966 compared with 1965 figures, shown in parentheses, were as follows: number of children examined, 56,877 (49,286) (metropolitan, 41,388 [37,345], country, 15,489 [11,941]). The 376 (381) schools visited comprised metropolitan, 281 (267), of which 205 (193) were government and 76 (74) were non-government schools, and country, 95 (114) of which 76 (87) were government and 19 (27) were non-government schools.

During 1966 the 15 (12 in 1965) full-time dentists employed by the School Dental Service visited 4 (4) metropolitan schools, 87 (112) country schools and 27 (21) orphanages and Aboriginal missions. The number of children examined was 9,247 (9,952). With the consent of the parents, 5,256 (2,958) children were treated. Nine dental vans were in operation.

Tasmania

During 1966 three full time and thirteen part-time medical officers examined school children in government and non-government schools. In addition, two regional medical officers of health also examined school children. Twenty-two full-time and five part-time sisters visited homes and schools. Of the 34,609 children examined by medical officers, 9,873 were found to have defects.

The School Dental Health Service, available free to all school children, aims to examine and treat every child each six months. In 1965–66 fixed surgeries were in use or under construction in nineteen districts and in clinics at Hobart and Launceston. Fifteen mobile caravans were also in use. An orthodontic service based on Hobart, and using a mobile caravan, supplements the therapeutic dental service. During the year ended 30 June 1966, there were 18,744 new visits to school dentists and 31,062 repeat visits.

Adopting the New Zealand system, Tasmania became the first Australian State to establish a school of dental nursing. Ten students were enrolled in 1966 for the first year of a two-year course, and ten will be enrolled annually. A resident hostel is attached. The School, located in Hobart, has a principal and a matron, and will itself treat forty patients a day. It is expected that a total of approximately thirty dental nurses will work with dentists in the districts; a dental nursing certificate or its equivalent will be needed for a nurse to be appointed.

Northern Territory

The Schools Medical Officer makes routine physical examinations of all children attending pre-school centres and schools. The only children not so examined by him are those at the special Aboriginal schools, who are examined during Aboriginal health surveys. A special dental service for school and pre-school children is available in Darwin and Alice Springs. School doctors and dentists travel throughout the Territory to carry out diagnosis and treatment.

Australian Capital Territory

The A.C.T. Health Services Branch of the Commonwealth Department of Health is responsible for health aspects of child welfare in the Australian Capital Territory. These include the School Medical Service carried out by three medical officers and three trained nurses, and the School Dental Service, staffed by twelve dentists, together with surgery and clinical assistants.

A Child Guidance Clinic assists children with psychiatric disorders. During 1966 the clinic assisted 177 children of both pre-school and school age who were referred to it by private doctors, the School Medical Service, social workers, and the Australian Capital Territory Education Clinic. The Child Guidance Clinic is staffed by three part-time psychiatrists, a full-time psychologist and a social worker.

Medical examinations are carried out at all public and private schools within the territory. The total number of school children examined during the year 1965–66 was 6,243. Examinations of children attending pre-school centres were made according to the time available, 300 pre-school children being examined.

Defects during the year were: 450 eyesight, 167 ear, nose and throat, and 665 miscellaneous; and 299 cases of hearing loss not requiring further treatment were also found. Triple antigen injections, totalling 10,256 in 1966, were given at regular sessions held throughout the year, and 6,200 anti-poliomyelitis injections were given at baby health clinics. Since the introduction in September 1966 of Sabin oral poliomyelitis vaccine, 41,609 doses were given to school children, 4,469 to infants.

The School Dental Service provides free treatment for children attending infants and primary schools, both public and private, in the Australian Capital Territory. During 1966, 11,981 children were examined in Canberra and Jervis Bay schools. As in previous years, a visit was also made to the Cocos (Keeling) Islands where 72 adults and children were examined.

Disposal of dead by cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31 December 1966 there were twenty-two crematoria in Australia, situated as follows: New South Wales, 8; Victoria, 4; Queensland, 4; South Australia, 1; Western Australia, 2; Tasmania, 2; Australian Capital Territory, 1. There is no crematorium in the Northern Territory. The following table shows the number of cremations and total deaths in each State and Territory for each of the years 1962 to 1966.

CREMATIONS AND TOTAL DEATHS: STATES AND TERRITORIES, 1962 TO 1966

State or Territory	1962		1963		1964		1965		1966	
	Cremations	Total deaths	Cremations	Total deaths	Cremations	Total deaths	Cremations	Total deaths	Cremations	Total deaths
New South Wales .	15,198	36,861	15,664	37,226	16,321	39,487	16,651	38,949	17,733	40,546
Victoria . . .	8,425	25,847	8,782	26,920	9,832	27,548	9,857	28,031	10,362	28,673
Queensland . .	4,220	13,182	4,432	13,275	4,745	14,523	4,905	14,114	5,097	14,861
South Australia .	1,122	8,232	1,304	8,201	1,506	8,906	1,638	8,788	1,957	9,323
Western Australia .	1,640	5,810	1,900	5,976	2,003	6,429	2,010	6,274	2,308	6,772
Tasmania . .	792	2,870	786	2,818	864	3,174	912	3,043	947	3,159
Northern Territory .	..	144	..	161	..	164	..	161	..	154
Australian Capital Territory . .	..	217	..	317	..	363	..	355	(a) 81	441
Australia . .	31,397	93,163	32,868	94,894	35,271	100.594	35,973	99,715	38,485	103,929

(a) Commenced operation 8 July 1966

COMMONWEALTH GOVERNMENT ACTIVITIES

Commonwealth services outlined in the following pages are those provided under the National Health Services or otherwise administered by the Commonwealth Department of Health. For particulars of services administered by the Commonwealth Department of Social Services and of Commonwealth expenditure from the National Welfare Fund on all forms of social and health services *see* the chapter Welfare Services.

At the time of federation the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. Following on the passing of the *Quarantine Act* 1908 a branch of the Department of Trade and Customs, under the control of a Director of Quarantine, was created on 1 July 1909. The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes.

National health benefits

Pharmaceutical benefits

A comprehensive range of drugs and medicines is made available to all persons receiving treatment from a medical practitioner registered in Australia. The benefits are supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital. The patient pays the first 50 cents of the cost of a prescription dispensed by an approved pharmacist, but pensioners who are eligible for treatment under the Pensioner Medical Service (*see* page 558) receive all benefits without any contribution being made. Special arrangements exist to cover prescriptions dispensed at locations outside the normal conditions of supply, e.g. in remote areas. Total Commonwealth expenditure on pharmaceutical benefits in the year 1965–66 was $91,783,674.

Hospital and nursing home benefits

The *National Health Act* 1953–1966 provides for the payment of Commonwealth hospital and nursing home benefits. Commonwealth benefits are payable only in respect of treatment received in approved hospitals and approved nursing homes. For the purposes of the National Health Act, premises which provide medical treatment, care and accommodation for sick persons are approved either as hospitals or as nursing homes, depending mainly on their clinical standards and the type of patients accommodated. Usually premises are approved as hospitals if their general standards are substantially equivalent to those of a public hospital and if hospital treatment, as defined in the National Health Act, is provided. Premises are approved as nursing homes where their general standards are similar to those prevailing in benevolent homes, convalescent homes, rest homes, or homes for the aged, and if nursing home treatment as defined in the Act is provided.

Patients in approved hospitals. A basic principle of the provision of benefits for patients in approved hospitals is the Commonwealth support of voluntary insurance against the costs involved. Insured patients in approved hospitals receive a Commonwealth hospital benefit of $2 a day which is paid through the contributors' registered hospital benefits organisations. Total payments by contributors to organisations range from 10 cents to 65 cents a week for single persons and from 20 cents to $1.30 a week for families. Examples of contributions and benefits payable, including Commonwealth benefits of $2 a day, are:

Weekly contributions		Total benefits	
Single person	Family	Daily	Weekly
c	$	$	$
10	0.20	4.40	30.80
15	0.30	5.60	39.20
20	0.40	6.80	47.60
25	0.50	8.00	56.00
40	0.80	11.60	81.20
55	1.10	15.20	106.40
65	1.30	17.60	122.20

A contribution of 80 cents a week covers a family for benefits in excess of the public ward charge in any State. Contributions are allowable deductions for income tax purposes.

During the waiting period of two months after joining an organisation the Commonwealth benefit is payable at the rate of 80 cents a day, unless the organisation pays fund benefits, in which case Commonwealth benefit is payable at the higher rate of $2 a day. While a member is in arrears with his contributions and fund benefits are not payable, the Commonwealth benefit is payable at the rate of 80 cents a day unless the member was in receipt of unemployment or sickness benefits under the *Social Services Act* 1947–1966.

Contributors who would have been excluded from fund benefits because of organisations' rules covering pre-existing ailments, chronic illnesses or maximum benefits are assured of hospital fund benefits by the provisions of the special account plan. Since 1 January 1967 the hospital fund benefit usually payable in such cases is $3.00 a day and is paid either from a special account, guaranteed by the Commonwealth, or from the ordinary account of the organisation. Prior to 1 January 1967 the fund benefit payable was $1.60 a day. If the payments from the special account exceed contributions credited to the account, the amount of deficit is reimbursed by the Commonwealth.

A person who joins a registered hospital benefits organisation within eight weeks of being discharged from an approved nursing home is entitled to immediate Commonwealth benefit of $2 per day and to fund benefits without having to serve a waiting period. If a qualified patient in an approved hospital is not insured (i.e. not a member of a hospital benefits organisation), a Commonwealth benefit of 80 cents a day is deducted from his account by the hospital. The Commonwealth subsequently reimburses the hospital. Under arrangements made under the National Health Act pensioners who are enrolled in the Pensioner Medical Service and are treated in public wards of public hospitals are entitled (with a few exceptions) to free public ward treatment. From 1 January 1967 the Commonwealth has paid the hospitals a benefit of $5.00 a day for each pensioner. Prior to this date $3.60 was paid.

Patients in approved nursing homes. The Commonwealth nursing home benefit of $2 a day is payable in respect of all qualified patients in approved nursing homes, whether the patients are insured or not. This benefit is deducted from the patient's account and subsequently paid by the Commonwealth to the nursing home. If no charge is made by the nursing home, the Commonwealth nursing home benefit of $2 a day is still payable to the nursing home in respect of qualified patients.

There is no need for patients in approved nursing homes to be insured with a registered hospital benefits organisation. Fund benefits are generally not payable. However, the National Health Act provides that where an insured special account patient is treated in an approved nursing home for an acute illness or condition and is given treatment equivalent to that which he would have received in an approved hospital, approval may be given to the payment of special account fund benefits.

Australians overseas. Australian residents who receive hospital treatment in recognised hospitals in overseas countries, while temporarily absent from Australia, are eligible to receive the Commonwealth and fund benefits to which they are entitled.

Expenditure on hospital and nursing home benefits. The following table shows the amount of Commonwealth hospital and nursing home benefits paid during 1965–66. This does not include expenditure on mental hospitals (*see* page 557).

COMMONWEALTH HOSPITAL AND NURSING HOME BENEFITS PAID STATES AND TERRITORIES, 1965–66

($'000)

Type of patient	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Uninsured patients (80c) .	663	358	944	119	152	50	73	11	2,371
Insured patients ($2)(*a*) .	8,425	4,743	2,247	1,977	1,577	647	(*b*)	(*b*)	19,616
Pensioner patients ($3.60) .	5,590	3,055	2,754	1,191	1,443	515	23	89	14,659
Nursing home patients ($2) .	8,711	4,640	3,316	*c* 1,905	1,897	756	(*c*)	..	21,223
Total	**23,389**	**12,796**	**9,261**	**5,192**	**5,069**	**1,968**	**95**	**100**	**57,870**

(*a*) Does not include payments of $2,873,345 towards special accounts deficits in 1965–66. (*b*) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organisation registered in one of the States, and payments to them are included in the respective States. (*c*) Includes Northern Territory.

Registered hospital benefits organisations. The following table shows the number of registered hospital benefits organisations, the membership at 30 June 1966, and fund benefits paid during 1965–66. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members.

HOSPITAL BENEFITS: ORGANISATIONS AND FUND BENEFITS, STATES, 1965–66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
Registered organisations at 30 June 1966(*b*) . . .	32	(*c*) 44	3	13	9	10	111
Membership at 30 June 1966 .	1,366,209	1,024,209	312,743	386,808	279,192	119,689	3,488,850
Fund benefits paid . . $'000	27,027	13,777	4,345	5,941	4,386	2,087	57,562

(*a*) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organisation registered in one of the States, and payments to them are included in the respective States. (*b*) Interstate branches are not included. (*c*) Includes eighteen Bush Nursing Hospitals.

Mental hospitals

In 1946, when Commonwealth hospital benefits were introduced for patients in public hospitals, no provision was made for patients in mental hospitals. To help meet the cost of maintaining patients in mental hospitals the Commonwealth Parliament passed the *Mental Institutions Benefits Act* 1948. This Act ratified agreements with the States, whereunder it was provided that the States would cease making charges for the maintenance of mental patients and that the Commonwealth would pay the States a benefit based on the amount which had been collected by the States from the relatives of patients in mental hospitals by way of charges for maintenance.

These agreements operated for five years and terminated in the latter half of 1954. The amount contributed by the Commonwealth during the operation of the agreements was approximately one shilling (10 cents) a day for each patient. When the agreements terminated, Dr. Alan Stoller, of the Victorian Mental Hygiene Authority, was commissioned to undertake a survey of mental health facilities and needs in Australia. His report, issued in May 1955, stated that serious overcrowding existed in the majority of mental hospitals in Australia. The provision of more beds was the most urgent need, but other accommodation and rehabilitation facilities were also required.

Following the report, the Commonwealth made an offer of $20 million to the States as part of a capital expenditure programme of $60 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer. By 1963 more than three-quarters of the total grant under the *States Grants* (*Mental Institutions*) *Act* 1955 had been distributed, and the Commonwealth Government announced in November 1963 its intention of continuing assistance to the States towards capital costs on a similar basis, but without overall limit, for a period of three years. In May 1964 the *States Grants* (*Mental Health Institutions*) *Act* 1964 was passed to implement that policy. This Act provided for the continuation of Commonwealth aid of $1.00 for every $2.00 of capital expenditure by the States on mental health facilities. The new Act makes no provision limiting the size of the grant and the assistance is limited to the three-year period concluding on 30 June 1967. The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government from 1955–56 to 1965–66.

EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH GOVERNMENT: STATES, 1955–56 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1955–56	418	891	133	24	20	60	1,546
1956–57	767	1,054	176	257	104	138	2,496
1957–58	648	1,091	228	304	58	183	2,513
1958–59	394	1,239	237	245	34	92	2,241
1959–60	718	1,036	149	184	74	134	2,295
1960–61	866	168	195	91	31	104	1,454
1961–62	1,297	..	141	56	154	..	1,648
1962–63	1,295	..	75	104	116	..	1,590
1963–64	982	..	108	173	332	..	1,595
1964–65(*a*)	659	711	225	265	447	197	2,504
1965–66	1,717	1,567	146	242	338	529	4,539
Total, 1955–56 to 1965–66	**9,762**	**7,758**	**1,815**	**1,945**	**1,706**	**1,436**	**24,421**

(*a*) Expenditure for 1964–65 includes final grants, totalling $406,454, made under the 1955 Act as follows: New South Wales, $274,938; Queensland, $21,210; and South Australia, $110,306.

There are no mental hospitals in the Northern Territory or in the Australian Capital Territory.

Medical benefits

A medical benefits scheme has operated since July 1953, being authorised firstly by the National Health (Medical Benefits) Regulations and then by the *National Health Act* 1953–1966. The basic principle of the scheme is Commonwealth support of voluntary insurance towards meeting the costs of medical attention. The benefits provided by the Commonwealth are paid either on a fee-for-service basis in respect of the items set out in the schedule to the National Health Act or in the form of a subsidy not exceeding half of the payments made to doctors by registered organisations under contract arrangements.

Commonwealth fee-for-service benefits are paid in accordance with the list of benefits set out in the Schedule to the *National Health Act* 1953–1966. The present Schedule came into force on 1 June 1964.

In order to qualify for a Commonwealth benefit a person is required to be insured with a registered medical benefit organisation. The organisation pays the Commonwealth benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Commonwealth benefit is subsequently made to the organisation by the Commonwealth.

Commonwealth benefits ranging from 80 cents for ordinary general practitioner visits to $60 for major operations are payable to members of registered medical benefit organisations. The fund benefit payable varies according to the weekly contributions paid by the member and the particular medical service. Examples of the range of benefits are as follows.

Type of service	Combined Commonwealth and fund benefits(*a*)
	$
Certain major operations	150.00
Appendix operation	45.00
Midwifery	33.75
Tonsils—	
Under 12 years	15.75
12 years and over	22.50
Surgery consultation—general practitioner	from $1.60 to $2.00

(*a*) The total benefit varies according to the weekly contribution rate. The most common contribution rates are 25 cents a week for single persons and 50 cents a week for a family. From 1 April 1965 the majority of medical benefit organisations introduced new tables of fund benefit based on the present Commonwealth Schedule. The general effect of these new tables was an increase in the fund benefits paid by the organisations to their contributors.

Provision is made for the payment of fund benefit from special account for claims lodged by contributors who have reached maximum benefits or who make claims in respect of pre-existing ailments. The medical special accounts are operated along the same principles as the hospital special accounts (*see* pages 555–6) and the special account fund benefit paid usually matches the Commonwealth benefit for the particular service.

Australians overseas. Australian residents temporarily absent from Australia who receive medical attention by registered medical practitioners in the country they are visiting are entitled, if insured, to the Commonwealth benefit and the medical fund benefit to which they would be entitled if the service were rendered in Australia.

Expenditure on medical benefits. The following table shows the number of registered medical benefit organisations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organisations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical benefit schemes is considerably higher than the number of contributors.

MEDICAL BENEFITS: SUMMARY, STATES, 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
Registered organisations(*b*)	no.	28	20	6	8	8	10	80
Members . . .	no.	1,330,384	929,693	314,450	356,033	268,719	113,456	3,312,735
Medical services . .	no.	11,138,084	8,000,119	3,111,730	3,132,442	2,232,508	835,378	28,450,261
Commonwealth benefit(*c*)	$'000	15,929	11,030	4,142	4,933	3,337	1,137	40,507
Fund benefit . .	$'000	18,393	10,539	4,390	4,712	3,269	1,256	42,560

(*a*) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organisation registered in one of the States. (*b*) Interstate branches are not included. (*c*) Does not include payments of $774,870 towards special accounts deficits.

Pensioner Medical Service

The Pensioner Medical Service, which commenced on 21 February 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the *National Health Services Act* 1948–1949. The service has been continued under the provisions of the *National Health Act* 1953–1966. The service provided to eligible pensioners consists of medicine provided free of charge and a medical service of a general practitioner nature such as that ordinarily rendered by a general medical practitioner in his surgery or at the patient's home. Specialist services are not provided. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Doctors participating in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

From 1 November 1955 to 1 January 1966 persons eligible to receive the benefits of the service were those who satisfied a means test and received an age, invalid or widow's pension under the *Social Services Act* 1947–1966, or a service pension under the *Repatriation Act* 1920–1966, or a tuberculosis allowance under the *Tuberculosis Act* 1948, and dependants of persons eligible for the service. Since 1 January 1966 all those pensioners and their dependants who qualify under the current means tests are eligible for the benefits of the Pensioner Medical Service. The means test now applied for enrolment in the Pensioner Medical Service is the merged means test determining eligibility for a full or part pension or a tuberculosis allowance.

At 30 June 1966 the total number of pensioners and dependants enrolled in the Pensioner Medical Service was 1,005,813, while the number of doctors participating in the scheme at that date was 6,034. As a result of the relaxation of the Pensioner Medical Service means test, which became effective as from 1 January 1966, an additional 137,000 pensioners and dependants were admitted to the Service. During 1965–66 doctors in the scheme provided 7,494,002 services—visits and surgery consultations—for persons enrolled in the scheme. For these services they were paid $13,365,373. The average number of services rendered by doctors to each enrolled person was 8.4.

Anti-tuberculosis campaign

The main provisions of the *Tuberculosis Act* 1948 are as follows: (*a*) Section 5 authorises the Commonwealth to enter into an arrangement with the States for a national campaign against tuberculosis; (*b*) Section 6 empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis; (*c*) Section 8 provides for the setting up of an advisory council to advise the Commonwealth Minister for Health on matters relating to the national campaign; and (*d*) Section 9 authorises the Commonwealth to pay allowances to sufferers from tuberculosis and to their dependants.

Under an arrangement with the Commonwealth Government, each State conducts a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947–48. Thus the States carry out the physical or field work of the national campaign and the Commonwealth acts in an advisory, co-ordinating and financial capacity. For this reason the Commonwealth has not found it necessary to make much use of its powers under Section 6 of the Tuberculosis Act. An advisory council, known as the National Tuberculosis Advisory Council, has been set up. There are twelve members, the chairman being the Commonwealth Director-General of Health.

To help reduce the spread of infection the Commonwealth Government pays allowances to persons suffering from infectious tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13 July 1950. The rates now payable are: married sufferer with a dependent wife, $26.75 a week; sufferer without a spouse but with a dependent child or children, $17.00 a week; dependent child or children under sixteen years of age and full-time student children from sixteen to twenty-one years, $1.50 a week for each dependent child (additional to child endowment); sufferer without dependants, $16.25 a week (reducible to $13.00 a week if a person is maintained free of charge in an institution).

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person, $14 a week, and in the case of a person without a dependent wife, $7 a week.

New tuberculosis cases notified. The following table gives particulars of the number of new cases of tuberculosis notified in Australia for 1966.

TUBERCULOSIS: NEW CASES NOTIFIED(*a*), STATES AND TERRITORIES, 1966

State or Territory	Age group (years)					Total
	0–14	15–34	35–54	55 and over	Not stated	
New South Wales	48	153	326	383	5	915
Victoria	66	122	221	240	..	649
Queensland	13	87	188	290	3	581
South Australia	11	27	50	43	..	131
Western Australia	14	19	46	55	..	134
Tasmania	4	16	16	27	..	63
Northern Territory	11	20	25	14	..	70
Australian Capital Territory	..	2	3	1	..	6
Australia	**167**	**446**	**875**	**1,053**	**8**	**2,549**

(*a*) Figures supplied by the Director of Tuberculosis in each State.

Commonwealth expenditure. Expenditure by the Commonwealth Government on its anti-tuberculosis campaign is set out in the following tables. The figures for maintenance differ from those in the table shown in the chapter Welfare Services because they include administrative costs, which are not a charge on the National Welfare Fund.

COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN STATES AND TERRITORIES, 1965-66

($'000)

State or Territory	Allowances	Maintenance (*a*)	Capital	Total
New South Wales	437	6,635	390	7,464
Victoria	291	3,084	169	3,544
Queensland	344	2,074	110	2,528
South Australia	93	690	14	797
Western Australia	61	733	2	796
Tasmania	50	360	12	422
Northern Territory	7	..	..	7
Australian Capital Territory	2	9	..	11
Australia	**1,286**	**13,586**	**696**	**15,569**

(*a*) Includes $207,369 for administrative costs.

COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN: AUSTRALIA, 1961-62 TO 1965-66

($'000)

Year	Allowances	Maintenance (a)	Capital	Total
1961–62 .	1,746	8,838	773	11,357
1962–63 .	1,607	9,942	984	12,533
1963–64 .	1,593	10,679	598	12,871
1964–65 .	1,458	10,354	696	12,508
1965–66 .	1,286	13,586	696	15,569

(*a*) Includes administrative costs.

Anti-poliomyelitis campaign

Information concerning the initial production by the Commonwealth Government in 1955 of anti-poliomyelitis vaccine in Australia, and of the testing procedures which were carried out, is contained in Year Book No. 49 and earlier issues.

Distribution of the Salk poliomyelitis vaccine, which was supplied free of charge to the States, began in July 1956. The States were responsible for the organisation and running of their own campaigns and for the distribution of the vaccine in accordance with priority groups established by the National Health and Medical Research Council. Up to 1958 priority was given to children in the 0–14 age group, expectant mothers, and persons subjected to special risk. During 1958 this priority was extended to persons in the 15–44 age group. No child can be vaccinated without the consent of a parent or guardian.

Vaccination against poliomyelitis takes the form of four injections of the vaccine. The second injection is given approximately four weeks after the first, the third injection is given not less than thirty-two weeks after the first, and the fourth injection a minimum of one year after the third dose. Where the incidence of the disease in certain areas approaches epidemic proportions, special efforts have been made to vaccinate as soon as possible all persons in the area who give their consent.

It is difficult to give a completely accurate estimate of the vaccination coverage for the whole of Australia because methods of recording vaccination data differ from State to State. The proportion of children who had received three injections by twelve months of age is considered to be very small; by the recommended dosage schedule the third injection is given at fourteen months or later. From figures available in 1964 more than 60 per cent of children from fifteen months to four years have received three injections. In the age group five to fourteen years, 90 per cent have had three injections, as also have the fifteen to nineteen year olds. Only 40 per cent of persons twenty to forty-five years old have received three or more injections.

Australia-wide information is not available regarding the proportion of the population which has now received a fourth injection, but if information from South Australia can be taken as a guide, it would appear that approximately 16 per cent of those persons who have already received three injections have also received a fourth dose.

One million doses of each of the three types of monovalent Sabin vaccine were imported by the Commonwealth in October 1962 for use in a possible emergency. The decision whether to use the Sabin vaccine rests with the individual State health authorities.

Following the success of a pilot scheme in 1964, the Tasmanian Government conducted a full scale Sabin vaccination programme in the latter months of 1965. In this campaign the oral vaccine was made available to all, irrespective of previous vaccination status.

Following a recommendation of the National Health and Medical Research Council, all States except Victoria have indicated that Sabin oral vaccination campaigns will be commenced during 1967. The Commonwealth commenced Sabin vaccination in the Australian Capital Territory in September 1966 and proposes to implement a campaign in the Northern Territory during the winter months of 1967.

Oral vaccination takes the form of three doses of vaccine given at intervals of at least eight weeks. The vaccine is administered either from a spoon or on a sugar lump.

New cases of poliomyelitis notified. The numbers of new cases of poliomyelitis notified, and confirmed by the Poliomyelitis Sub-committee of the National Health and Medical Research Council, are shown for each State for each year from 1961 to 1966 in the following table.

POLIOMYELITIS: NEW CASES NOTIFIED, STATES AND TERRITORIES, 1962 TO 1966

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1962 .	178	22	38	17	4	..	1	..	260
1963 .	3	19	1	8	5	..	..	..	36
1964 .	1	6	..	..	..	..	..	..	7
1965 .	3	..	..	..	..	1	..	..	4
1966 .	..	..	1	..	..	..	..	..	1

Free milk for school children scheme

The *States Grants (Milk for School Children) Act* 1950 was passed with the object of improving the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending government or non-government primary schools, including nursery schools, kindergartens, crèches and missions for Aborigines, are eligible to receive free milk. The cost of the milk and half the capital or incidental costs, including administrative expenses of the scheme, are reimbursed by the Commonwealth to the States. All States now participate in the scheme. At 30 June 1966 approximately 1,712,000 children were entitled to receive free milk under this scheme. Expenditure by the Commonwealth Government during the years 1961–62 to 1965–66 was as follows.

COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME STATES AND TERRITORIES, 1961–62 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 . .	2,659	2,072	1,130	665	529	351	47	55	7,507
1962–63 . .	2,636	1,901	1,146	714	586	384	53	60	7,480
1963–64 . .	2,663	2,186	1,120	708	618	399	50	55	7,799
1964–65 . .	2,881	2,069	1,215	760	640	389	72	60	8,085
1965–66 . .	2,916	2,386	1,259	801	622	408	56	74	8,521

The figures in the foregoing table differ slightly from those in the table shown in Chapter 14, Welfare Services, as they include capital and administrative costs. Figures in the latter table represent only expenditure which is a charge on the National Welfare Fund (i.e. the cost of the milk).

Commonwealth organisations concerned with health

National Health and Medical Research Council

In 1926 the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), 'for the purpose of securing closer co-operation between the Commonwealth and State Health Authorities'. In 1936 the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions: to advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research; to advise the Commonwealth Government on the expenditure of money specifically appropriated to be spent on the advice of this Council; to advise the Commonwealth Government on the expenditure of money on medical research and on projects of medical research generally; and to advise Commonwealth and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The Council consists of the Commonwealth Director-General of Health (as chairman), two other officers of the Commonwealth Department of Health, the official head of each State Health Department, the Director of Public Health for Papua and New Guinea, a representative of the Commonwealth Serum Laboratories Commission, and ten other members, one each being nominated by the Australian Medical Association, the Australian Dental Association, the Australian Paediatric Association, the Australian College of General Practitioners, the Royal Australasian

College of Physicians, the Royal Australasian College of Surgeons, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the College of Pathologists of Australia, the College of Radiologists of Australasia, and the Australian universities having medical schools. An eminent layman and laywoman, appointed by the Commonwealth Minister for Health, also serve on the Council.

The Council has established three advisory committees—the Medical Research Advisory Committee, the Medicine Advisory Committee, and the Public Health Advisory Committee—to provide advice in each specialised field. It has also established other committees to consider specialised subjects such as antibiotics, dental health, child health, food standards, maternal health, nursing, nutrition, occupational health, and veterinary public health.

The first session of the National Health and Medical Research Council was held at Hobart in February 1937. The sixty-third session was held at Canberra in November 1966.

Under the *Medical Research Endowment Act* 1937 the Commonwealth Government has made an annual appropriation of funds to assist: (*a*) departments of the Commonwealth or of a State engaged in medical research; (*b*) universities for the purpose of medical research; (*c*) institutions and persons engaged in medical research; and (*d*) in the training of persons in medical research. For 1965–66 this appropriation was $878,000 and for 1966–67, $959,000.

National Biological Standards Laboratory

The *Therapeutic Substances Act* 1953–1959 provides the Commonwealth with powers to ensure that therapeutic substances used for the prevention, diagnosis and treatment of disease in man and animals are safe, pure and potent. The Director-General of Health is authorised under this Act to set up laboratories to test such substances. In 1958 the first steps were taken to establish an Australian National Biological Standards Laboratory in Canberra.

The Laboratory is divided into two main divisions, a Biological Division and a Pharmaceutical Division. The Biological Division consists of the Bacterial Products Laboratory, the Viral Products Laboratory, an Endocrine Products Laboratory, and an Antibiotic Products Laboratory. The Pharmaceutical Division consists of an Analytical Chemistry Laboratory and a Pharmacology Laboratory.

Samples of therapeutic agents available in Australia are taken and tested for compliance with legal standards. A major function of the laboratories is the establishment of such standards where none at present exist or present standards are unsatisfactory. The laboratories receive international reference standards of biological substances from stocks maintained by the World Health Organization, and will on request issue Australian reference standards which have been assayed against international standards.

Commonwealth Serum Laboratories

The laboratories were established in 1916 under the administration of the Department of Trade and Customs and from 1921 to 1961 were operated under the Department of Health. Control of the laboratories passed to the Commonwealth Serum Laboratories Commission on 2 November 1961.

The laboratories' basic function is to ensure the supply of essential biological products in accordance with national health needs. This includes production and supply of essential biological products; research and development relating to biological products and allied fields; and the maintenance of potential production capacity for use in emergencies.

Since their foundation the laboratories have greatly extended in size and scope. They now produce some 450 regular products and many special products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staff total over 900.

Products comprise a full range of human bacterial and virus vaccines, veterinary bacterial and virus vaccines, serum products such as blood fractions, a wide variety of antibacterial and antitoxic sera, antivenenes, penicillin, endocrines, including insulin, A.C.T.H., pituitary and thyroid extracts, allergy testing materials and desensitising preparations, culture media, and diagnostic agents for clinical and laboratory work. More recently, tissue culture materials have been prepared and supplied to virus research workers throughout Australia.

Continual research is conducted into the relevant aspects of microbiology, immunology and related fields. As the growth of medical and scientific knowledge in Australia and overseas reveals new methods of diagnosis, prevention and treatment of diseases, this information is applied to the preparation of new biological products at the laboratories.

Facilities are maintained for investigations into public health matters which are inconvenient or impracticable to handle at the Commonwealth Health Laboratories or the School of Public Health and Tropical Medicine. The laboratories serve as a national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards (World Health Organization). They act as a regional reference centre for WHO in collating reports of the prevalence of certain infectious diseases and provide facilities for the identification of these diseases. Veterinary biological products produced at the laboratories have given the lead to other producers in Australia, resulting in the diminution of the incidence of a number of serious infectious stock diseases.

Commonwealth Health Laboratories

Health laboratories, of which there are fifteen, are situated in the following towns: Albury, Alice Springs, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba, and Townsville. They were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide doctors of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realised that co-operation between the general practitioner, with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other, is essential to the investigation and control of disease.

From this standpoint the laboratories have proved their value in the determination of leptospirosis and endemic typhus in North Queensland, in the investigation of special local problems in Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie, and of plumbism at Port Pirie. In these investigations close co-operation exists with State and local health and hospital services, especially in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers previously unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the School of Public Health and Tropical Medicine, Sydney.

The laboratories are unique in that, with the exception of the use of X-rays, they cover all the fields of diagnostic requirements, namely, pathology, public health, haematology, parasitology, mycology, bacteriology, biochemistry, and blood group serology.

Commonwealth Acoustic Laboratories

Sponsored by the National Health and Medical Research Council, the Acoustic Research Laboratory, Sydney, investigated inter-communication difficulties and noise problems in aircraft and tanks (1942–46). It then investigated the problem of congenital deafness in children resulting from maternal rubella. The Department of Health took over the laboratory in January 1947, and subsequently established branch laboratories in all other State capitals.

The *Acoustic Laboratories Act* 1948 gave the Minister for Health power to establish, maintain and operate, within the Commonwealth, acoustic laboratories for scientific investigations, including tests in respect of hearing aids and their application to the needs of individuals, and in respect of problems associated with noise as it affects individuals. Scientific investigations are carried out in the Central Laboratories in Sydney by specialised scientific groups in psychology and audiology, acoustics and electroacoustics, medical ultrasonics, and psychoacoustics. The results of this research are published in scientific literature and Commonwealth Acoustic Laboratories reports. In 1949 the Government approved the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children. This service has since been extended to those whose hearing loss is discovered after leaving school, but who are still under twenty-one years. Since May 1964 the cost of hearing aids has been met from the National Welfare Fund. The laboratories' functions also include: provision and maintenance of hearing aids on behalf of the Repatriation and other Commonwealth Departments; assistance to the State Education Departments in measuring deafness by providing and maintaining portable audiometers; testing hearing of civil aviation aircrew as required by international agreement; and the making of independent tests on behalf of State and other authorities. The Central Laboratories located in Sydney are responsible for staff training, production of equipment, calibration of hearing-aids and audiometers, and the technical administration of branch laboratories.

Commonwealth X-ray and Radium Laboratory

In 1928 the Commonwealth Government purchased ten grammes of radium for use in medical treatment and research in Australia. The use of this radium was to be co-ordinated by the Department of Health, and in 1929 the Department established the Commonwealth Radium Laboratory to act as custodian of the radium and to ensure its equitable distribution and efficient use. The radium is distributed on loan to treatment centres throughout Australia. Under the terms of these loans, treatment at well-equipped clinics is available to all persons requiring it, irrespective of their ability to pay. Portions of the original stock of radium have been remounted from time to time, reflecting changes in techniques of treatment.

In 1935 the work of the laboratory was extended to include physical aspects of X-ray therapy, and the name of the laboratory was changed at that time to its present form. Since 1939 its functions have included investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography and high-kilovoltage techniques. In 1946 the laboratory imported the first artifically-produced radioactive isotopes used in Australia and established a system for the procurement and distribution of these substances.

A radiochemical laboratory and associated facilities were set up in the laboratory to permit the assay of radioactive materials present in minute amounts in the environment—in air, water, soil, and foods such as milk, grain and vegetables. A programme of monitoring the fall-out in Australia arising from the testing of nuclear weapons is continuing.

The laboratory assists with services developed in the capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of the exposure to radiation of those who work with X-rays and radioactive materials. The services of the laboratory are available to all who work with ionising radiations.

A radon service has been operated by the laboratory since its inception. During 1965–66, 32,367 millicuries of radon were issued by the laboratory in the form of implants, needles and tubes for use in Victoria, Tasmania, South Australia, and Western Australia. A further 22,827 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1964–65 were 34,480 millicuries and 23,291 millicuries, respectively. The issue of radon from a few centres to serve hospitals all over the continent is an Australian development which enables very efficient use to be made of the radium available.

Since 1935 the laboratory has maintained the Australian (free-air) standard for the precise measurement of X-ray doses. Sub-standard clinical dosemeters used by the laboratory and by centres in other States are calibrated in terms of this standard.

Through the development of atomic energy programmes overseas, supplies of radio-isotopes have been available for use in Australia since 1946. Some of the radio-isotopes required in Australia are prepared by the Australian Atomic Energy Commission in its reactor at Lucas Heights. At the present time the procurement and distribution of radio-isotopes to be used in medicine and medical research are the responsibility of the Department of Health, and these isotopes are procured by the laboratory, as a central procurement agency, principally from Great Britain Canada, and the United States of America. The procurement and distribution of radio-isotopes for industrial and non-medical uses are the responsibility of the Australian Atomic Energy Commission.

The importation of radio-isotopes is restricted under the Customs (Prohibited Imports) Regulations. Approval for importation is given either by the Director-General of Health or by the Australian Atomic Energy Commission, depending on the category of use, after it has been established that the isotope will be used safely and usefully.

During 1965 66, 44 different isotopes were procured for use in medicine and medical research. They represented 2,150 separate deliveries, of which 156 (including 12 different isotopes) were from the Australian Atomic Energy Commission. Of the 44 isotopes, 25 were for use in medical diagnosis or treatment, as distinct from medical research. Bulk supplies of radio-isotopes used for diagnosis or treatment are obtained regularly, and these are distributed by the laboratory as individual doses for use on patients throughout Australia in accordance with a policy developed by the Radio Isotopes Committee of the National Health and Medical Research Council. These radio-isotopes are issued free of charge. In the year ended 30 June 1966, 24,751 individual doses of these materials were issued for medical diagnosis and therapy.

Investigations of the degree of protection necessary in particular applications of X-rays and radioactive materials continue to be an important activity of the laboratory. It prepares specifications of the protection facilities necessary in departments and laboratories employing ionising radiations in medicine, research and industry, and carries out measurements of radiation levels in existing departments and laboratories. A film-badge service to measure the radiation dose received by those exposed to ionising radiations is maintained. In 1965–66, 66,529 film-badges were processed, assessed and reported on; the corresponding figure for the previous year was 65,299.

The laboratory maintains a library of radiological literature and issues library bulletins at appropriate intervals. Technical communications on topics related to its functions are issued from time to time.

School of Public Health and Tropical Medicine

In March 1930 the Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organisation of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The School comprises sections of Preventive Medicine, Tropical Medicine, Occupational Health, Environmental Health, Biochemistry, Bacteriology and Pathology, Parasitology, Medical Entomology, and Medical Statistics. The Child Welfare section of the Institute of Child Health is located at the School, with which it is closely associated. The Occupational Health Section undertakes surveillance of the health of persons employed at the Small Arms Factory, Lithgow, and at the Munitions Filling Factory, St. Mary's. The library, which includes approximately 20,000 bound volumes and a large collection of official and institutional papers and reports, forms an important information centre in the subjects of public health and tropical medicine.

The work of the School comprises both teaching and investigation. Courses are held for the university post-graduate diploma in public health and the diploma in tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Courses are provided also in hygiene and social medicine for students of architecture and social studies; in tropical medicine for lay officers, nurses in tropical service and missionaries; and in industrial health for engineering students. Training is also provided for certain personnel of the armed services, for laboratory workers from various services and institutions, and for post-graduate nursing diploma students.

Investigations cover a wide range of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out in Australia and in Papua, New Guinea, Norfolk Island, and Nauru in co-operation with the local administrations and the South Pacific Commission. Limited accommodation and other facilities for investigation can be made available at the school for independent research workers.

Institute of Child Health

Associated with the School of Public Health is the Institute of Child Health, part of which is located in the School of Public Health and Tropical Medicine in the grounds of the University of Sydney and part at the Royal Alexandra Hospital for Children, Camperdown. The activities of the Institute are concerned with research into medical and social problems of childhood, undergraduate teaching of students of the Faculty of Medicine in the University of Sydney, post-graduate teaching of doctors and members of associated professions, and collaboration with other bodies concerned with the general field of child health.

The establishment of the Institute at present consists of the director, two senior medical officers one child psychiatrist, five other medical officers, a psychologist, two social workers and clerical staff. The director of the Institute is the Professor of Child Health in the University of Sydney. He is also a senior honorary paediatrician on the staff of the Children's Hospital. The child psychiatrist is also Associate Professor of Child Psychiatry in the University of Sydney. The director is required to co-ordinate and control undergraduate and post-graduate teaching in paediatrics and child health. Each group of medical students attends the Children's Hospital for ten weeks tuition in paediatrics and child health.

The particular research activities of the Institute vary with the immediate and long-term problems which present themselves. Fields of study have included rheumatic fever, scurvy, accidents, prematurity, hypothyroidism, and mental deficiency. Studies are undertaken into the problems of infants and children deprived of a normal home life. Members of the Institute staff are available for consultation by Commonwealth and State authorities and voluntary agencies.

Commonwealth Bureau of Dental Standards

This Bureau is concerned with research, standards and testing related to dental and allied materials and processes. It became part of the Department of Health in January 1947, but for the preceding eight years it was sponsored by the National Health and Medical Research Council. During that time the then Dental Materials Research Laboratory established itself as a recognised authority in its special field and proved to be of value to the defence services, government departments, the dental profession, and manufacturers of dental products. By maintaining the quality of dental materials and improving techniques for their use the Bureau continues to assist the dentist in his service to the community—a service that calls for restorations and appliances of a high degree of precision and permanence under very exacting conditions.

The Bureau operates under Section 9 of the *National Health Act* 1953–1966, and its functions are as follows: original research into dental equipment, materials, techniques, and processes; regular reporting of the results of these investigations in recognised Australian scientific journals; the development of specifications for dental materials and equipment, through the Standards Association of Australia, in consultation with a committee representing the Commonwealth Department of Health, the Australian Dental Association, and manufacturers and distributors; and the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials with a view to assisting them in the improvement of existing products and the development of new materials.

Australian Institute of Anatomy

The Australian Institute of Anatomy is situated in a building erected in Canberra by the Commonwealth Government under the *Zoological Museum Agreement Act* 1924. The Institute became part of the Commonwealth Department of Health in 1931, and a number of Health Department sections are now situated in the Institute. These include the Museum and Medical Artistry Section, the Nutrition Section, the Public Health Laboratory, and a Veterinary Laboratory.

The scientific research work of the Institute is concentrated on problems of nutrition, taking the form of field surveys of the dietary status of the Australian population and laboratory investigations into the biochemistry of nutrition and metabolism.

Control of infectious and contagious diseases

The provisions of the various Acts with regard to the compulsory notification of infectious diseases and the precautions to be taken against their spread are dealt with under the headings of quarantine and notifiable diseases.

Quarantine

The *Quarantine Act* 1908–1966 is administered by the Commonwealth Department of Health and has three sections of disease control, as follows: (i) human quarantine, which ensures that persons arriving from overseas are free of quarantinable disease; (ii) animal quarantine, which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports; and (iii) plant quarantine, which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth action is necessary for the protection of any State or States, and in general the administration of interstate movements of animals and plants is left in the hands of the States.

Human quarantine. All passengers and crews arriving in Australia from overseas, whether by air or sea, are subject to a medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports full-time quarantine officers carry out the work, but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by the Commonwealth Director of Health, who is a medical officer of the Commonwealth Department of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague, and typhus fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever, and measles are directed to appropriate care and placed in isolation where necessary.

Valid vaccination certificates are required of travellers to Australia as follows.

Cholera. All arrivals from infested areas and from India, Pakistan, Burma, Thailand, Vietnam, Malaysia, Philippines, and Indonesia. No certificate is required in respect of children under one year of age.

Yellow fever. All arrivals from yellow fever endemic zones.

Smallpox. All arrivals from all countries except British Solomon Islands, Fiji, Nauru, New Zealand, Norfolk Island, Ocean Island, Australian Territory of Papua and New Guinea, Gilbert and Ellice Islands Colony, Christmas (Indian Ocean), Cocos (Keeling), Heard, Kerguelen, Lord Howe, Macquarie, and Tonga Islands, provided travellers have not been outside these areas for at least fourteen days before arrival and that these areas are free of smallpox. Australia reserves the right, in respect of arrivals from other countries, to isolate any person who arrives by air without a smallpox vaccination certificate and refuses to be vaccinated. Children under one year of age are exempt. For passengers arriving in Australia by sea, exemption is granted to infants under twelve months of age and to persons who hold religious convictions against vaccination or who are suffering from a medical condition certified by a medical practitioner to contra-indicate smallpox vaccination.

All passengers, whether they arrive by sea or air, are required to give their intended place of residence in Australia, so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

Isolation. Under the Australian Quarantine Act, airline and shipping operators are responsible for expenses of isolation of all travellers who disembark and (i) have come from a cholera infested area, or a cholera area specified above, within five days and do not possess a cholera vaccination certificate; or (ii) have come from an endemic zone within six days and do not possess a yellow fever vaccination certificate; or (iii) arrive by air without a smallpox vaccination certificate and refuse to be vaccinated on arrival.

The numbers of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of overseas vessels and aircraft calling at Australian ports during 1965–66 and during the preceding four years are shown in the following tables.

HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES ON OVERSEAS VESSELS AND AIRCRAFT CALLING AT AUSTRALIAN PORTS, 1965-66

Disease	Number of overseas vessels and aircraft on which cases were found	Number of cases of infectious disease	
		Passengers	Crew
Chicken pox	41	80	3
Gastroenteritis	1	..	1
Glandular fever	1	1	..
Infectious hepatitis	4	1	3
Measles	43	239	..
Meningitis	1	1	..
Mumps	14	31	..
Pyrexia of undetermined origin	1	1	..
Rubella	2	2	..
Scarlet fever	1	1	..
Typhoid fever	2	2	..
Venereal disease—			
Gonorrhoea	61	..	61
Syphilis	24	..	24
Other	30	..	30
Whooping cough	1	1	..
Total	(*a*) **201**	**360**	**122**

(*a*) On some vessels there were cases of more than one disease.

HUMAN QUARANTINE: OVERSEAS VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES FOUND, 1961-62 TO 1965-66

Year	Number of overseas vessels and aircraft cleared		Number of overseas vessels and aircraft on which cases were found	Number of cases of infectious disease	
	Ships	Aircraft		Passengers	Crew
1961–62	3,761	2,417	67	221	15
1962–63	2,943	2,423	91	438	35
1963–64	3,184	2,620	92	361	11
1964–65	3,359	2,936	107	333	19
1965–66	3,488	3,297	201	360	122

Animal quarantine. Animal quarantine, authorised by the provisions of the *Quarantine Act* 1908–1966, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Of the domesticated animals, only horses, dogs, cats and poultry are admitted from a limited number of countries depending on diseases being absent in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia, they are subject to quarantine detention. Zoological specimens are imported into registered zoos, where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Raw animal products such as hair, types of wool, skins, and hides are specially treated under quarantine control. Such items as raw meat, sausage casings and eggs, which cannot be sterilised, are admitted from very few countries. Other items, such as harness fittings, fodder and ship's refuse, are treated to destroy any possible infection. Special attention is given to the importation of biological substances of animal origin. The Animal Quarantine Service is also responsible for the health certification of animals for export overseas in accordance with the requirements of the various countries.

The division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine. The central administration is situated within the Health Department at Canberra, with a director, an assistant director and veterinary officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of that State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each capital city.

The Division participates in world-wide international notifications of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions, notably the Commonwealth Scientific and Industrial Research Organization. In matters of policy and the quarantine control of imports there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the General and Plant divisions of the quarantine service. Many diseases of animals are communicable to man, and for this reason animal and general quarantine administration are in some respects inseparable. Similarly the interests of animal and plant divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

Every two years the director of the Division convenes the Biennial Conference of Principal Commonwealth and State Veterinarians, which meets under the auspices of the Australian Agricultural Council to discuss problems of animal health, disease control and animal quarantine.

Plant quarantine. Since 1 July 1909 the importation into Australia of all plants or parts of plants, cuttings, seeds, and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the *Quarantine Act* 1908–1966, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel, for which they are reimbursed by the Commonwealth. In 1921 the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Plant Quarantine Branch was created. It is controlled by a director who is responsible for policy and legislation and for co-ordinating the work of the State officers who carry out the detailed administration in their capacity as Commonwealth officers.

Any plant material found carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment, or, if treatment is impracticable, may be destroyed. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles. Importation of plants likely to be infected with plant diseases or pests, of noxious plants or fungi, and of poison plants is prohibited. Agricultural seed, not restricted under quarantine legislation, must conform to standards of purity, and insect pest and disease freedom. Seed of commercial crops which could introduce diseases are prohibited imports except with special permission. All plant products not specifically restricted, such as timber, logs and crates, are subject to inspection upon arrival and treatment if necessary. Many commodities, including hops, cotton, peanuts in shell, potatoes, and certain crop seeds, may be imported only by approved importers under specified conditions. All nursery stock, including bulbs must be grown in post-entry quarantine. Prior approval is necessary, and such material may be imported only by approved importers who are registered for this purpose. The number of plants which may be imported in any one year is limited. The importation of propagating material of commercial fruits, vines and berries is permitted only after special prior approval and is subject to specific screening for virus by qualified authorities. Soil is a prohibited import, and any vehicles or goods contaminated with soil are required to be thoroughly cleaned, at the expense of the importer, before entry is permitted.

Notifiable diseases

Methods of prevention and control. Provision exists in the Health Acts of all States for the compulsory notification of certain infectious and other diseases and for the application of preventative measures. When any such disease occurs the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from, or to be carriers of, infectious disease must submit to clinical and laboratory examination. Persons suffering from certain communicable diseases, for example, smallpox and leprosy, are detained in isolation.

Notifiable diseases and cases notified, 1966. The following table shows, by State and Territory, the number of cases notified in 1966 for those diseases notifiable in all States and Territories. In May 1965 the National Health and Medical Research Council at its Fifty-ninth Session proposed a basic list of diseases to be notifiable in each State and Territory, and this table is based upon that proposal. The table does not include all diseases which are notifiable in a State or Territory. Factors such as the following affect both the completeness of the figures and the comparability from State to State and from year to year: availability of medical and diagnostic services; varying degrees of attention to notification of diseases; and enforcement and follow-up of notifications by Health Departments.

NOTIFIABLE DISEASES(*a*): NUMBER OF CASES NOTIFIED(*b*) STATES AND TERRITORIES, 1966

Disease	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Anthrax	..	..	..	..	..	..	..	..	..
Brucellosis	13	43	11	1	3	1	..	1	73
Diphtheria	4	..	1	..	2	..	1	..	8
Gonorrhoea	4,449	1,754	1,479	256	681	169	221	27	9,036
Infectious hepatitis(*c*)	4,188	2,137	843	978	28	200	78	125	8,577
Leprosy	..	1	1	..	13	..	29	..	44
Leptospirosis	15	1	55	1	7	..	..	..	79
Paratyphoid fever	1	1	..	..	1	..	..	..	3
Poliomyelitis	..	..	1	..	..	..	..	..	1
Syphilis	542	57	151	7	20	4	16	1	798
Tetanus	7	12	16	..	2	..	1	..	38
Tuberculosis(*d*)	915	649	581	131	134	63	70	6	2,549
Typhoid	4	5	6	1	2	1	2	..	21
Typhus (all forms)	1	..	5	..	..	..	..	..	6

(*a*) This table is based on a proposal made by the National Health and Medical Research Council at its 59th session in May 1965 to recommend to State Health Departments a basic list of notifiable diseases. (*b*) No cases of cholera, plague, smallpox or yellow fever were notified. (*c*) Includes hepatitis, serum (homologous). (*d*) Queensland figure includes erythema nodosum and pleural effusion.

Tuberculosis and poliomyelitis. The number of new cases of tuberculosis notified in each State and Territory by age groups for the year 1966 is shown on page 559. Some data regarding deaths from tuberculosis are shown on page 248 of Chapter 9, Vital Statistics. Cases of poliomyelitis notified in each State and Territory for the years 1962 to 1966 are shown on page 561.

Infectious hepatitis. The following table shows the number of cases of infectious hepatitis notified in each State and Territory during the years 1962 to 1966.

INFECTIOUS HEPATITIS: CASES NOTIFIED, STATES AND TERRITORIES, 1962 TO 1966

State or Territory	1962	1963	1964	1965	1966
New South Wales	3,358	2,822	2,731	3,325	4,188
Victoria	3,533	3,840	2,697	1,987	2,137
Queensland(*a*)	884	1,433	1,163	556	843
South Australia	504	293	289	414	978
Western Australia	117	145	101	83	28
Tasmania	630	856	636	197	200
Northern Territory	101	104	57	128	78
Australian Capital Territory	88	20	12	51	125
Australia	**9,215**	**9,513**	**7,686**	**6,741**	**8,577**

(*a*) Includes hepatitis, serum (homologous).

Venereal diseases. The prevention and control of venereal diseases are the responsibility of State Health Departments. The necessary powers for the purpose are provided either by a special Venereal Diseases Act or by a special section of the Health Act. Venereal diseases were made notifiable in South Australia in November 1965, and the diseases are now notifiable in all States and Territories. While the provisions of the legislation differ from State to State, the Acts usually make it obligatory upon the patient to report for and continue under treatment until certified as cured. Treatment of venereal disease must be by a registered medical practitioner. Facilities for treatment of venereal disease free of charge may be arranged at subsidised hospitals or at special clinics. Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person, or the employment of an infected person in the manufacture or distribution of foodstuffs.

Commonwealth grants to organisations associated with public health

In addition to providing the services mentioned on pages 554–69, the Commonwealth Government gives financial assistance to certain organisations associated with public health. Examples of organisations included in this category are the National Fitness Organisations, the Royal Flying Doctor Service of Australia, the Red Cross Blood Transfusion Service, the Lady Gowrie Child Centres and the National Heart Foundation of Australia.

National fitness

In 1938, arising from a recommendation of the National Health and Medical Research Council, the Commonwealth Government appointed a National Co-ordinating Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State, and local government authorities in the National Fitness Movement. Following the recommendations of the first Co-ordinating Council meeting in 1939, the Commonwealth Government agreed to make available an annual sum of $40,000 for five years, and grants were allocated to each State for purposes of organisation and to each of the six Australian universities to establish lectureships in physical education.

The movement was placed on a statutory basis with the passing of the *National Fitness Act* 1941. The Act provides for a Commonwealth Council for National Fitness to advise the Minister for Health concerning the promotion of national fitness. It provides also for the establishment of a Trust Account, known as the National Fitness Fund, to assist in financing the movement. In June 1942 the annual appropriation from revenue to the National Fitness Fund was increased to $145,000 to include grants to the State Education Departments and for the work in the Australian Capital Territory. The annual appropriation was increased to $200,000 in 1962, the increase of $55,000 being made available to the National Fitness Councils in the States. A further increase in the annual appropriation was made for 1966–67 when an additional $100,000 was made available to State National Fitness Councils. The current annual appropriation of $300,000 is disbursed as follows: State National Fitness Councils, $228,908; Universities, $24,800; State Education Departments, $34,000; central administration, $6,792; and Australian Capital Territory, $5,500. In addition, a sum of $200,000 has been made available to State National Fitness Councils to assist in the development of national fitness capital projects on a $1 Commonwealth to $2 State basis for the three year period 1966–67 to 1968–69.

Royal Flying Doctor Service of Australia

The purpose of the Royal Flying Doctor Service of Australia is to provide medical and dental services to persons in isolated areas. Most remote homesteads are equipped with two-way radio sets which they use for receiving ordinary radio programmes, participating in the School of the Air, and for contacting each other. In cases of minor illness or injury they also use these sets to seek medical advice. If the illness or injury is serious a doctor flies to the homestead and, if necessary, flies the patient to the nearest hospital. Standard medicine chests are supplied by the service. Each chest contains a first-aid book and instructions on the use of the various drugs and medical supplies. Further instructions are given by doctors over the air. From time to time special purpose work is undertaken in connection with flood relief, searching for lost parties, and co-ordinating cattle movements.

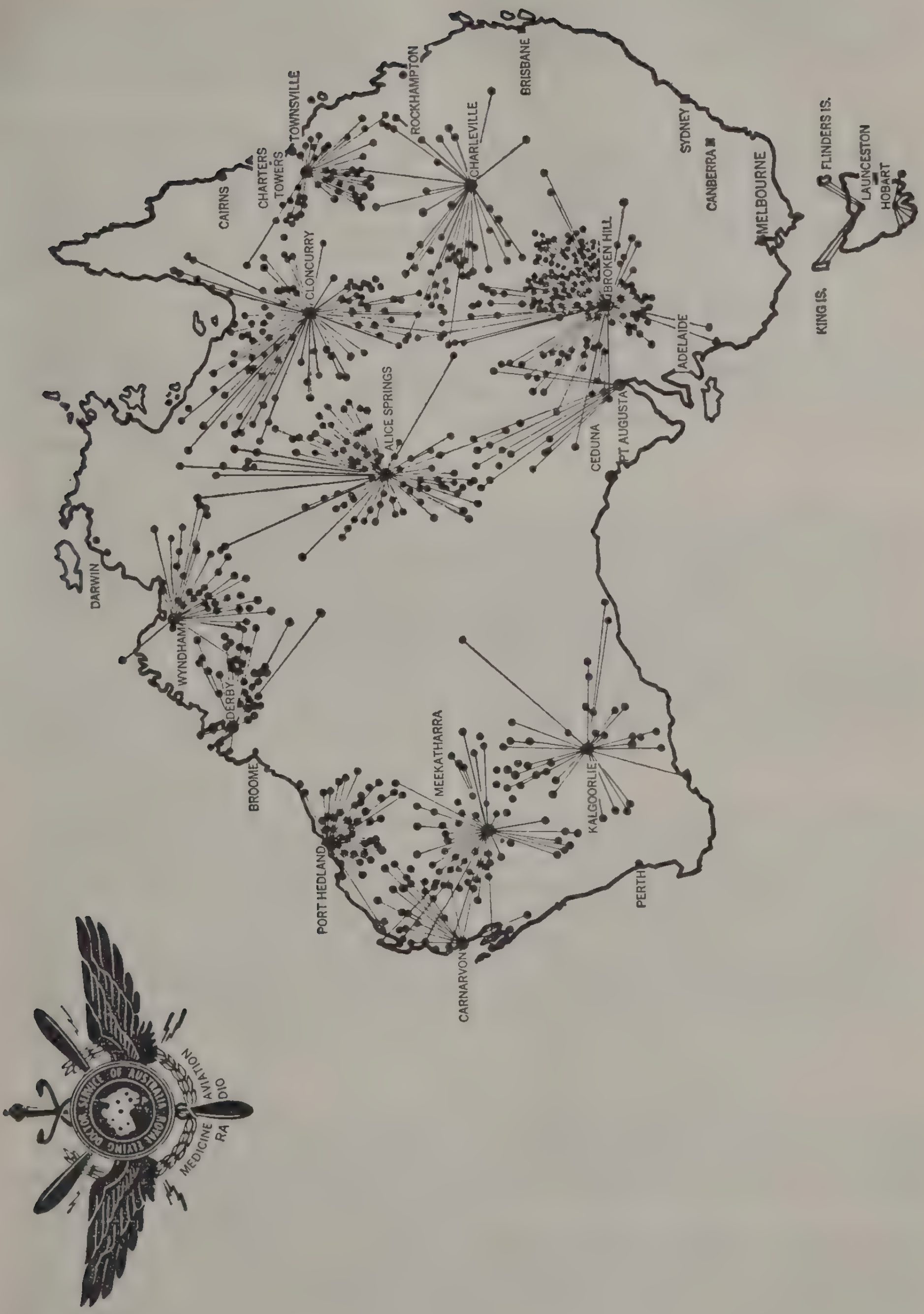
The service is not conducted for profit. In some sections small charges are made for particular services or a fixed annual charge is levied on graziers. Other sections rely on voluntary contributions from those who use the services. Donations and government contributions help to provide much of the overhead and capital expenditure incurred each year. The Commonwealth has made an annual grant to the service for operational expenses since 1936. The Commonwealth annual grant to the Royal Flying Doctor Service of Australia towards maintenance was increased from $110,000 to $150,000 per annum for three years from 1 July 1965. The Commonwealth grant towards capital expenditure was increased from $80,000 to $130,000 per annum for the same period. This capital expenditure grant is made on a $1 for $1 basis, in respect of approved projects.

The Royal Flying Doctor Service of Australia is conducted by a federal council comprising representatives of seven sections, namely Queensland, New South Wales, Victoria, South Australia, Western Australia, the Eastern Goldfields of Western Australia, and Tasmania. The Queensland, New South Wales, South Australian, and Tasmanian sections are centred in their own States, but in Western Australia there are three centres, that in the far north being under the control of the Victorian section and that in the south-east under the control of the Eastern Goldfields section. The third, which has bases at Port Hedland and Meekatharra, is sponsored by the Western Australian section.

In 2,272 flights during 1964–65 the Service flew 814,052 miles. The map of the radio network operated by the Royal Flying Doctor Service shows the area of approximately 1½ million square miles covered by the Service. (*See* plate 34 opposite.)

Red Cross Blood Transfusion Service

The Australian Red Cross Society conducts a blood transfusion service in all States. The costs of the service are borne by a Commonwealth grant equal to 30 per cent of the certifiable operating expenses incurred by the Society in the conduct of the blood transfusion service in



CAIRNS
CHARTERS TOWERS
TOWNSVILLE
ROCKHAMPTON
CHARLEVILLE
BRISBANE
SYDNEY
CANBERRA
MELBOURNE
FLINDERS IS.
LAUNCESTON
HOBART
KING IS.
CLONCURRY
BROKEN HILL
ADELAIDE
ALICE SPRINGS
CEDUNA
PT AUGUSTA
DARWIN
WYNDHAM
DERBY
BROOME
MEEKATHARRA
KALGOORLIE
PORT HEDLAND
PERTH
CARNARVON
FLYING DOCTOR SERVICE OF AUSTRALIA
MEDICINE
AVIATION
RADIO

PLATE 34

each State, payment by the Government of the State concerned of 60 per cent of the expenses, and payment by the Society of the remaining 10 per cent. The payments made by the Commonwealth Government to the State Governments in 1965–66 were as follows: New South Wales, $117,208; Victoria, $144,124; Queensland, $103,113; South Australia, $61,282; Western Australia, $44,002; Tasmania, $12,682; total, $482,413. The Commonwealth also assists the Society to the extent of ninety per cent of the cost of operating blood transfusion services in the Northern Territory and the Australian Capital Territory.

Lady Gowrie Child Centres

In 1940 the Commonwealth Government established a pre-school demonstration centre in each of the six State capital cities. These centres are known as the Lady Gowrie Child Centres and are administered by local State committees under supervision of the Australian Pre-school Association located at Canberra. An annual grant is made available by the Commonwealth towards the operation of the centres, $107,700 being allocated for 1965–66 and $120,000 for 1966–67.

The specialised function of the centres is that of demonstration and research, and the programmes are carried out under the supervision of the Federal Pre-school Officer. Each centre is concerned with a study of the factors promoting and retarding physical and mental health in young children and in demonstrating an educational health programme based on the developing needs of children aged three to six years. The centres are used for observation by students of medicine, psychology, education, social studies, architecture, nursing, and domestic science, and by student teachers.

Home Nursing Subsidy Scheme

The Home Nursing Subsidy Scheme provides payments to assist the expansion of home nursing activities. To be eligible for a subsidy an organisation must be non-profit making and must receive assistance from a State Government, local government body or other authority established by or under a State Act. It must employ registered nurses. It is provided that Commonwealth subsidy must not exceed the amount of State assistance received by the organisation concerned. Eligible organisations established prior to November 1956 now receive $2,200 a year in respect of each additional qualified nurse employed. New organisations established since November 1956 receive $1,100 a year in respect of each qualified nurse employed. Expenditure during 1965–66 on the promotion of the Home Nursing Service was $546,358. The Commonwealth subsidy paid to various district nursing organisations has led to the employment of 391 trained nurses.

National Heart Foundation of Australia

The National Heart Foundation of Australia is a national organisation established to promote research in cardiovascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases. Formed in 1960, as a result of a public appeal yielding $5 million to which the Commonwealth Government contributed $20,000, the Foundation has its headquarters in Canberra. The organisation is controlled by a board of directors assisted by various committees. State divisions with their own administrations deal especially with rehabilitation and education. From its inception to the end of 1966 the Foundation has allocated about $2 million for grants-in-aid towards research in university departments, hospitals and research institutes, research fellowships tenable in Australia and overseas, and overseas travel grants. Most of the annual expenditure of about $600,000 is devoted to supporting research in cardiovascular disease.

World Health Organization

The World Health Organization (WHO) is a specialised agency of the United Nations. It acts as the directing and co-ordinating authority on international health work with the object of promoting and protecting the health of all peoples. Among its many functions it provides technical assistance, health services and facilities and other aid on request by Governments, or for special groups such as the peoples of trust territories.

The headquarters administration of WHO is located at Geneva, and there are six regional offices throughout the world, Australia being assigned to the Western Pacific Region. As a financial member, Australia is represented in the World Health Assembly and also on the Regional Committee for the Western Pacific. The nineteenth meeting of the Assembly was held at Geneva during May 1966 and the seventeenth meeting of the Regional Committee was held at Manila during September 1966.

The Commonwealth's contribution to WHO during 1965–66 was $552,435.

INSTITUTIONS

Institutions referred to under this heading are classified into the following groups: (i) public hospitals and nursing homes; (ii) mental hospitals; (iii) private hospitals and nursing homes; (iv) repatriation hospitals; (v) isolation hospitals.

Public hospitals and nursing homes

The statistics shown under the heading 'public hospitals and nursing homes' refer to institutions providing hospital and nursing home treatment, whether general or special, with the exception of mental hospitals, private hospitals and nursing homes, repatriation hospitals, and isolation hospitals. They include institutions wholly provided for by the State, partially subsidised by the State or by State endowments but receiving private aid also, and hospitals established and endowed by individuals for the treatment of the sick generally. Public hospitals are premises of this kind in which patients are received and lodged exclusively for 'hospital' treatment, i.e. nursing care for the purpose of professional attention. Public nursing homes are such premises in which patients are received and lodged exclusively for the purpose of nursing home care, i.e. of a kind ordinarily provided in a benevolent home, convalescent home, home for aged persons, or rest homes for patients requiring professional attention.

Number, staff and accommodation

PUBLIC HOSPITALS AND NURSING HOMES: NUMBER, STAFF AND ACCOMMODATION, STATES AND TERRITORIES, 1964-65

	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number of hospitals and nursing homes	267	153	143	66	92	27	4	1	753
Medical staff—									
Salaried	1,065	1,080	763	283	203	130	23	12	3,559
Other(*b*)	5,077	1,800	197	657	408	141	. .	81	8,361
Total medical staff	*6,142*	*2,880*	*960*	*940*	*611*	*271*	*23*	*93*	*11,920*
Nursing staff(*c*)	16,479	11,322	6,402	3,490	3,516	1,729	246	397	43,581
Accommodation—									
Number of beds and cots	24,366	13,529	12,949	4,606	5,179	2,838	556	454	64,477

(*a*) Excludes the six State hospitals and nursing homes. (*b*) Includes honorary and visiting medical officers. (*c*) Qualified and student nurses, assistant nurse trainees, nursing aides, and nursing aide trainees.

In-patients treated

The following table gives particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital or nursing home twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital or nursing home after their mothers' discharge.

PUBLIC HOSPITALS AND NURSING HOMES: IN-PATIENTS TREATED STATES AND TERRITORIES, 1964-65

	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
In-patients at beginning of year—									
Males	7,833	4,079	4,234	1,501	1,593	936	193	110	20,479
Females	10,581	5,988	4,882	1,679	1,874	1,046	201	210	26,461
Persons	18,414	10,067	9,116	3,180	3,467	1,982	394	320	46,940
Admissions and re-admissions during year—									
Males	215,581	118,567	109,600	44,844	52,216	15,556	5,227	4,845	566,436
Females	319,065	186,149	132,506	57 074	62,800	21,571	5,875	7,686	792,726
Persons	534,646	304,716	242,106	101,918	115,016	37,127	11,102	12,531	1,359,162
Total in-patients (cases) treated—									
Males	223,414	122.646	113,834	46,345	53,809	16,492	5,420	4,955	586,915
Females	329,646	192,137	137,388	58,753	64,674	22,617	6,076	7,896	819,187
Persons	553,060	314,783	251,222	105,098	118,483	39,109	11,496	12,851	1,406,102
Discharges—									
Males	206,772	112,795	105,952	42,951	50,693	14,847	5,068	4,623	543,701
Females	311,487	181,531	129,735	55,340	61,538	20,852	5,752	7,536	773,771
Persons	518,259	294,326	235,687	98,291	112,231	35,699	10,820	12,159	1,317,472
Deaths—									
Males	8,776	5,635	3,849	1,917	1,474	721	172	189	22,733
Females	7,520	4,584	2,946	1,561	1,207	654	119	129	18,720
Persons	16,296	10,219	6,795	3,478	2,681	1,375	291	318	41,453
In-patients at end of year—									
Males	7,866	4,216	4,033	1,477	1,642	924	180	143	20,481
Females	10,639	6,022	4,707	1,852	1,929	1,111	205	231	26,696
Persons	18,505	10,238	8,740	3,329	3,571	2,035	385	374	47,177
Average daily number resident	17,575	9,444	8,452	3,115	3,396	1,966	388	333	44,669

(*a*) Excludes patients in the six State hospitals and nursing homes.

In addition to those admitted to the hospitals and nursing homes, there are large numbers of out-patients treated. During 1964–65 there were 1,502,499 out-patients treated in New South Wales, 776,169 in Victoria, 720,157 in Queensland, 142,208 in South Australia, 179,000 (estimated) in Western Australia, 103,355 in Tasmania, 119,423 in the Northern Territory, and 20,402 in the Australian Capital Territory, making an estimated total for Australia of 3,563,213. The figures quoted refer to cases, as distinct from persons and attendances.

Revenue and expenditure

Details of the revenue and expenditure for the year 1964–65 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme. For some States expenditure on capital items out of individual hospitals' own funds are not included in the figures shown. Comparison between the States should therefore be made with caution.

In previous Year Books, Commonwealth hospital benefits, which were paid direct to public hospitals and nursing homes in either full or part payment of fees incurred by pensioners and other uninsured patients, were shown for some States as a separate revenue item or included under 'Government aid'. In the following table this revenue has been treated on the same basis as Commonwealth hospital benefits paid for insured patients and included in the amounts shown for fees. Details of Commonwealth expenditure on each of the different categories of hospital benefits are shown on page 556.

PUBLIC HOSPITALS AND NURSING HOMES: REVENUE AND EXPENDITURE, STATES AND TERRITORIES, 1964–65

($'000)

	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Revenue—									
Government aid	67,715	46,203	28,388	14,871	20,951	8,564	2,810	4,151	193,653
Municipal aid	..	4,302	..	661	2	..	..	..	5,943
Public subscriptions, legacies, etc.	299		55	466	159	..	..	..	
Fees(*b*)	43,041	23,338	9,039	6,976	7,750	2,691	446	731	94,012
Other	1,489	1,833	3,411	1,111	208	37	..	18	8,109
Total revenue	*112,544*	*75,676*	*40,894*	*24,085*	*29,070*	*11,291*	*3,256*	*4,900*	*301,717*
Expenditure—									
Salaries and wages	67,354	43,303	22,989	12,763	13,808	5,911	1,529	1,408	167,065
Upkeep and repair of buildings and grounds	3,277	1,559	1,018	1,103	2,573	200	249	69	10,049
All other maintenance	29,411	18,710	13,929	6,040	6,415	2,644	652	552	78,352
Total maintenance	100,042	63,572	37,937	19,906	22,796	8,755	2,429	2,030	257,467
Capital	13,035	10,584	3,241	4,871	6,102	2,539	(*c*) 827	2,768	43,968
Total expenditure	*113,078*	*74,155*	*41,178*	*24,777*	*28,898*	*11,294*	*3,256*	*4,799*	*301,434*

(*a*) Excludes the six State hospitals and nursing homes. (*b*) Includes Commonwealth hospital benefits paid direct to public hospitals and nursing homes. (*c*) Major capital works only.

Summary for Australia

A summary, for the years 1960–61 to 1964–65, of the number of public hospitals and nursing homes in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue, and expenditure is given in the following table.

PUBLIC HOSPITALS AND NURSING HOMES: AUSTRALIA, 1960–61 TO 1964–65

	1960–61	1961–62	1962–63	1963–64	1964–65
Hospitals and nursing homes	736	739	746	748	753
Medical staff(*a*)	10,386	10,535	r 11,023	r 11,287	11,920
Nursing staff(*b*)	37,607	r 39,094	r 40,206	r 42,104	43,581
Beds and cots	61,039	61,650	62,487	63,424	64,477
Admissions	1,182,198	1,235,665	1,267,092	1,318,241	1,359,162
Total in-patients (cases) treated	1,225,060	1,278,417	1,309,325	1,362,081	1,406,102
Deaths	36,619	37,569	38,530	r 40,554	41,453
Average daily number resident	41,009	42,166	42,926	44,004	44,669
Out-patients (cases)(*c*)	2,794,400	2,946,800	r3,107,400	3,327,000	3,563,000
Revenue . . . . $'000	218,798	239,787	258,271	278,216	301,717
Expenditure . . . $'000	217,112	239,548	254,753	275,526	301,434

(*a*) Honorary, visiting and salaried. (*b*) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides, and nursing aide trainees. (*c*) Partly estimated.

Mental health services

The organisation of mental health services in each State is described on pages 543–9 of this chapter.

The presentation of meaningful statistics of mental health services has become increasingly difficult because of changes in recent years in the institutions and services for the care of mental patients. The emphasis has shifted from institutions for the care of patients certified insane to a range of mental health services provided for in-patients and out-patients at psychiatric hospitals, admission and reception centres, day hospitals, out-patient clinics, training centres, homes for the mentally retarded and geriatric patients, psychiatric units in general hospitals, and the like.

To enable valid comparisons to be made of mental health statistics in each State the mental health authorities of all States have proposed standard statistical definitions. The statistical recording systems of a number of States are currently being reviewed for this purpose. Meanwhile certain limited information is available which is shown in the following paragraphs. Since a common measure has not yet been achieved, the figures which are relevant to the individual States to which they refer should not be added to form an Australian total.

In-patient institutions

The following table shows the number of major in-patient institutions in each State in 1965, the accommodation they provide for patients, and their staff. In-patient care for voluntary patients is also provided at many general public and a number of private hospitals. There are also psychiatric units attached to gaols, juvenile corrective centres and similar institutions. Only the following institutions are included in this table: *New South Wales*—the fourteen State psychiatric centres (a psychiatric hospital and associated admission centre being regarded as one psychiatric centre) and the two authorised private psychiatric centres (several other institutions provide in-patient care for voluntary patients only, but are excluded from the scope of the statistics); *Victoria*—the four psychiatric hospitals, ten mental hospitals, four informal hospitals, and eight intellectual deficiency training centres and schools; *Queensland*—four mental hospitals and one epileptic home (alcoholic clinics and inebriates' homes are excluded); *South Australia*—two mental hospitals and two receiving houses; *Western Australia*—the four mental hospitals, one psychiatric hospital, and the mental deficiency home for children; and *Tasmania*—the mental hospital and the psychiatric hospital.

MENTAL HEALTH: IN-PATIENT INSTITUTIONS, ACCOMMODATION AND STAFF STATES, 1965

	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas.
In-patient institutions . . .	16	26	5	4	6	2
Beds and cots for patients .	12,885	(*b*)9,695	4,333	2,523	1,921	930
Staff—Medical . . .	189	136	(*d*) 19	32	17	8
Nursing	(*c*)3,244	2,788	(*d*)1,198	668	470	262

(*a*) 30 June. (*b*) The number of beds and cots occupied on 31 October 1965. (*c*) Includes attendants. (*d*) Full-time staff only.

There are no in-patient institutions for mental patients in the Northern Territory or the Australian Capital Territory.

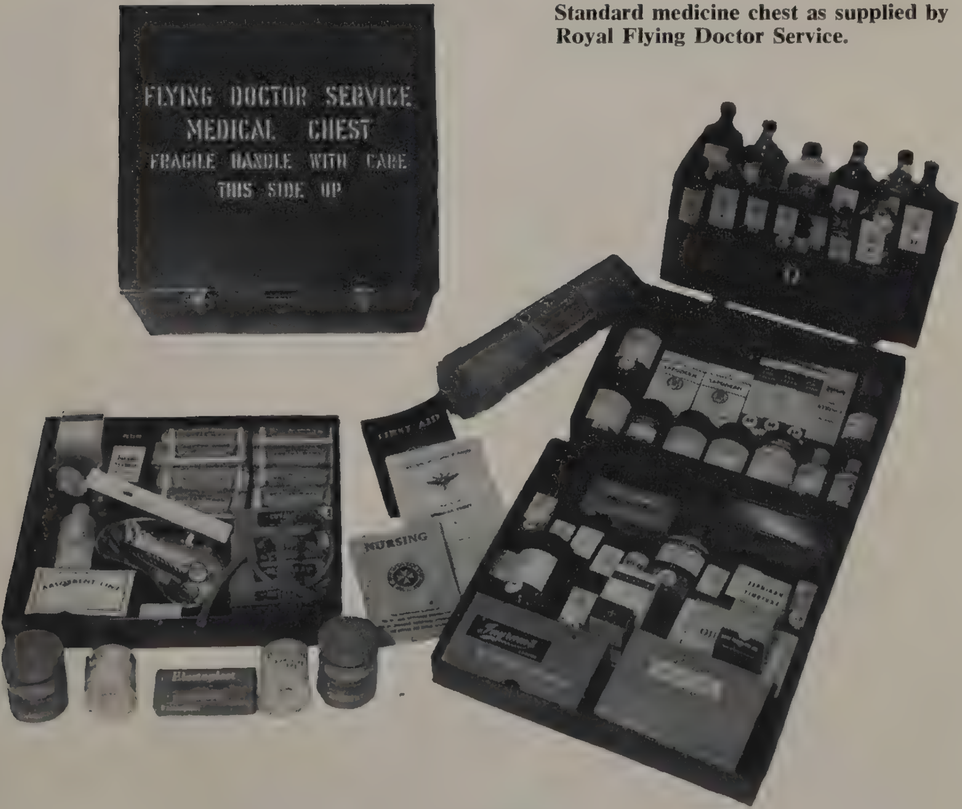
State government expenditure on mental health services

The following figures show particulars of total net expenditure (i.e. gross expenditure less receipts for services rendered) from consolidated revenue funds and certain trust or special funds on mental health institutions and services. The data have been compiled on the same basis as far as differences in organisation and accounting methods between States will permit. Expenditures on debt charges, pay-roll tax and superannuation payments have been excluded. State loan fund expenditures are also shown, but expenditure from moneys received as specific grants from the Commonwealth are not shown. For details of Commonwealth financial assistance to the States for mental health services, *see* pages 556-7.

Right: Interior of a Royal Flying Doctor Service aircraft.

Below: The transceiver—two-way radio set as used in the Royal Flying Doctor Service.

Standard medicine chest as supplied by Royal Flying Doctor Service.


FLYING DOCTOR SERVICE
MEDICAL CHEST
FRAGILE HANDLE WITH CARE
THIS SIDE UP
FIRST AID
NURSING

MENTAL HEALTH: NET EXPENDITURE(*a*), STATES, 1964-65
($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.
Expenditure from general revenue and certain trust funds	17,586	15,721	5,287	4,062	2,956	1,372
Loan fund expenditure .	4,695	4,384	242	500	863	666

(*a*) Net expenditure, i.e. gross expenditure less receipts for services rendered.

Patients

New South Wales. A new system of collecting particulars of admissions to and discharges from the sixteen psychiatric centres in the State was introduced from 1 July 1964 following a census of the in-patients at these centres in June 1964. Under this system, the sixteen psychiatric centres in the State are regarded as constituting a single Psychiatric Service, and 'admissions' and 'discharges' are identified in relation to the Service as a whole (and not to a particular centre). Patients are classified into three broad groups—voluntary, formally recommended, or forensic—according to the status under which they are admitted to the care (or remain under the care) of a psychiatric centre. The following table shows for the sixteen psychiatric centres the number of patients on the in-patient register and the admissions and discharges of in-patients in 1964–65.

PATIENTS ON THE IN-PATIENT REGISTER OF PSYCHIATRIC CENTRES NEW SOUTH WALES, 1964-65

	Males	Females	Persons
Patients on the register at 1 July 1964 . . .	7,116	6,374	13,490
Admissions during 1964–65—			
Voluntary	3,208	3,250	6,458
Formally recommended—Inebriate . . .	392	79	471
Other . . .	4,301	4,442	8,743
Forensic	16	1	17
First admissions	3,456	3,468	6,924
Re-admissions	4,461	4,304	8,765
Total admissions	*7,917*	*7,772*	*15,689*
Discharges during 1964–65—			
Deaths	554	514	1,068
Other discharges	7,509	7,410	14,919
Total discharges	*8,063*	*7,924*	*15,987*
Patients on the register at 30 June 1965 . .	6,970	6,222	13,192

Victoria. The following table shows the number of in-patients on the register and their movement during 1965. About two-thirds (7,237) of the admissions were voluntary or informal.

MENTAL PATIENTS: VICTORIA, 1965

	Psychiatric hospitals	Mental hospitals	Informal hospitals	Intellectual deficiency training centres and schools	Total
Patients on the register at 1 January 1965	1,005	8,064	78	2,363	11,510
Admissions(*a*)—					
Males	3,270	1,735	387	250	5,642
Females	3,408	1,870	670	138	6,086
Persons	*6,678*	*3,605*	*1,057*	*388*	*11,728*
Discharges	6,715	3,150	1,036	327	11,228
Deaths	77	754	5	35	871
Patients on the register at 31 December 1965—					
Males	412	3,979	34	1,158	5,583
Females	479	3,786	60	1,231	5,556
Persons	*891*	*7,765*	*94*	*2,389*	*11,139*

(*a*) Includes transfers from one institution to another.

There are also many non-residential psychiatric and out-patient clinics administered by the State mental health authority which provide treatment, but figures for these are not available. Other out-patient and community services include hostels, social clubs and sheltered workshops. The Personal Emergency Advisory Service dealt with 2,261 calls for assistance in 1965.

Queensland. In-patients at the five institutions for the mentally ill in 1964–65 were as follows.

MENTAL PATIENTS: QUEENSLAND, 1964–65

	Males	Females	Persons
Patients on the register at 1 July 1964	2,349	1,656	4,005
Admissions and re-admissions—First admissions	582	407	989
Re-admissions	361	435	796
Total admissions	*943*	*842*	*1,785*
Discharges	829	688	1,517
Deaths	145	106	251
Patients on the register at 30 June 1965	2,318	1,704	4,022

During 1964–65 non-residential treatment was provided at the Psychiatric Clinic for 1,733 patients and at Welfare and Guidance Clinics for 2,474 patients. Of these 659 and 1,584 respectively were new patients within the year. In addition, 329 day patients were treated at the Alcoholic Clinic.

South Australia. In-patient statistics for the two hospitals and two receiving houses were as follows.

MENTAL PATIENTS: SOUTH AUSTRALIA, 1964–65

	Males	Females	Persons
Patients on register at 1 July 1964	1,559	1,276	2,835
Admissions during 1964–65(*a*)—			
Voluntary	1,131	1,148	2,279
Formally recommended and forensic	444	338	782
First admissions	1,029	943	1,972
Re-admissions	546	543	1,089
Total admissions	*1,575*	*1,486*	*3,061*
Discharges	1,542	1,404	2,946
Deaths	97	101	198
Patients on register at 30 June 1965	1,495	1,257	2,752

(*a*) Excludes transfers.

The numbers of patients who received treatment during 1964–65 at non-residential clinics and services administered by the State mental health authority were as follows: out-patient clinics, 2,755; child guidance clinic, between 800 and 900; day hospital, 49; intellectually retarded clinic, 134. The last two institutions were opened during 1964–65.

Western Australia. In-patient statistics for the six institutions in 1964–65 were as follows.

MENTAL PATIENTS: WESTERN AUSTRALIA, 1964–65

	Males	Females	Persons
Patients on register at 1 July 1964	1,260	841	2,101
Admissions and re-admissions(*a*)	894	828	(*b*) 1,722
Discharges(*a*)	793	760	1,553
Deaths	95	51	146
Patients on the register at 30 June 1965	1,266	858	2,124

(*a*) Excludes transfers. (*b*) Includes 952 voluntary admissions and re-admissions.

The numbers of patients who received treatment and services at non-residential agencies of the Mental Health Division during 1964–65 were as follows: psychiatric clinics, 3,011; day hospital, 817; child guidance clinic, 1,086. The number attending the Industrial Training Centre at 30 June 1965 was 180; these patients were drawn from the day hospital and three in-patient institutions.

Tasmania. In-patients statistics for the two institutions in 1964–65 were as follows.

MENTAL PATIENTS: TASMANIA, 1964–65

	Males	Females	Persons
Patients on register at 1 July 1964	351	380	731
Admissions and re-admissions	564	481	1,045
Discharges	414	389	803
Deaths	29	26	55
Patients on the register at 30 June 1965	472	446	918

Private hospitals and nursing homes

In addition to the other hospitals and nursing homes referred to in previous sections, there are private hospitals and nursing homes in each State. The figures shown in the following table refer to those private hospitals and nursing homes which have been approved for the payment of hospital benefits under the Commonwealth *National Health Act* 1953–1966. Statistical information on patients, staff and finance of these institutions is not available on a uniform Australia-wide basis.

PRIVATE HOSPITALS AND NURSING HOMES: STATES, 1961 TO 1965

State	30 June				
	1961	1962	1963	1964	1965
NUMBER OF PRIVATE HOSPITALS AND NURSING HOMES					
New South Wales	461	474	507	527	531
Victoria	254	260	272	288	306
Queensland	92	116	130	136	146
South Australia	143	156	173	165	179
Western Australia	79	85	85	85	91
Tasmania	32	34	39	41	42
Australia	**1,061**	**1,125**	**1,206**	**1,242**	**1,295**
NUMBER OF BEDS FOR PATIENTS					
New South Wales	9,678	10,563	11,482	12,647	13,626
Victoria	4,998	5,556	5,896	6,371	6,797
Queensland	2,445	2,943	3,350	3,818	4,362
South Australia	2,866	3,440	3,755	3,983	4,280
Western Australia	1,945	2,381	2,549	2,627	2,846
Tasmania	687	763	870	925	982
Australia	**22,619**	**25,646**	**27,902**	**30,371**	**32,893**

There are no institutions of this nature in the Australian Capital Territory or the Northern Territory.

Repatriation hospitals

The medical care of eligible ex-servicemen and dependants of deceased ex-servicemen is a major function of the Commonwealth Repatriation Department (*see* the chapter Repatriation), which provides a comprehensive service.

In-patient treatment is provided at Repatriation General Hospitals in each capital city; in addition, there are auxiliary hospitals in all States except Tasmania. 'Anzac Hostels' are maintained in Queensland and Victoria for long-term patients. In-patient treatment may also be provided in country hospitals at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by the State authorities.

The average daily number of patients resident in the six Repatriation General Hospitals and eight auxiliary hospitals during the year ended 30 June 1966 was 3,707. The number of medical, nursing and other staff employed at these institutions at 30 June 1966 was 5,979 and a further 534 were employed at Repatriation out-patient clinics and limb and appliance centres. Total expenditure on Repatriation institutions during 1965–66 was $23,095,058 and $27,773,215 on other medical services.

Hansenide hospitals

There are four isolation hospitals in Australia for the care and treatment of persons suffering from Hansen's disease (leprosy). The numbers of isolation patients at these hospitals on 31 December 1966 were: Little Bay (New South Wales), 5; Fantome Island (North Queensland), 5; Derby (Western Australia), 178; and East Arm Settlement (Northern Territory), 32. In addition, there were 69 voluntary patients resident in the East Arm Settlement, mostly for the purpose of reconstructive surgery. With the exception of the Little Bay lazaret, nursing services are provided mostly by sisters of religious orders under supervision of Government medical officers.

Special wards for the isolation and treatment of leprosy patients are also provided at other centres. The location of these wards and the numbers of isolation patients resident at 31 December 1966, were: Fairfield (Victoria), 8; and Princess Alexandra Hospital (Queensland), 4.

Of the total 232 cases in isolation, 184 were full-blood Aborigines, 26 were others of Aboriginal blood, 2 were Pacific Islanders, 2 were Asians, and 18 were Europeans.

CHAPTER 17

EDUCATION, CULTURAL ACTIVITIES AND RESEARCH

For the most recent statistics available on subjects dealt with in this chapter reference should be made to the series of mimeographed bulletins *Social Statistics* issued by this Bureau. The *Quarterly Summary of Australian Statistics* contains summarised information on these subjects, and financial aspects are dealt with in the annual bulletins *Commonwealth Finance* and *State, Territory and Local Government Authorities' Finance and Government Securities.* The Annual Reports of the respective State Education Departments provide detailed statistical and other information concerning particular States.

EDUCATION

An account of the development of the Australian school system up to 1929 may be found in Year Books Nos. 1, 2, 17 and 22. In Year Book No. 40 a review of changes which occurred up to 1951 and of the practices then current was presented from material furnished by the Commonwealth Office of Education, which contributed much of the textual matter in the following sections.

Education in Australian schools

Administration and organisation

In Australia the provision of schools is mainly the responsibility of State Governments. During the nineteenth century all six Australian colonies had established systems of compulsory education, beginning with the *Education Act* 1872 in Victoria, and followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), Tasmania (1893), and Western Australia (1893). These Acts, with subsequent amendments, constitute the legal basis of compulsory education in the Australian States to-day.

School attendance is compulsory throughout Australia between the ages of six and fifteen at least. The minimum leaving age is fifteen years in New South Wales, Victoria, Queensland, and South Australia, and sixteen years in Tasmania, while in Western Australia attendance is compulsory until the end of the year in which the child turns fifteen years. The Education Acts require that all children between the prescribed ages must attend either a government school or some other recognised educational institution. Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition.

The school year in Australia begins at the end of January or early in February; it ends in mid-December. The long vacation is taken over the summer months (December to February) and two short vacations divide the school year into three terms.

At government primary schools it is usual for both boys and girls to attend the same school; at the secondary level practices vary, but the trend is towards co-educational schools. Non-government schools cater mainly for boys and girls separately.

Government school systems

Government schools, except in the Commonwealth Territories, are a responsibility of the six State Governments. Although the educational systems are not identical, they have many similar features. Responsibility for framing educational policy and having it put into effect rests with a Minister for Education, who is a member of the State Cabinet. The administrative authority in each State is an Education Department headed by a Director-General or Director of Education. Separate divisions of the Education Department in each State administer primary, secondary and technical education (in New South Wales there is a separate Department of Technical Education). Other divisions look after such matters as the recruitment and training of teachers, pupil guidance, research, and the education of atypical children. In some States administration has been decentralised to a degree by the appointment of 'Area' or 'Regional' directors, who are responsible for policy in the area which they control.

Tuition at government primary and secondary schools is free in all States. Parents are usually expected to bear the cost of text-books, uniforms and charges for such things as the use of sports materials. However, income tax concessions exist in respect of these expenditures for both government and non-government systems, and certain text-book costs are subsidised in the case of pupils attending government and non-government schools in some States.

Non-government schools systems

More than 80 per cent of the children at non-government primary and secondary schools attend Roman Catholic schools, which form a highly developed but not centralised system. At the primary level these children normally attend mixed parish schools, but at the secondary level there are boys schools, approximately half taking boarders, and girls schools. Some of the small convent schools in country districts enrol young boys as well as girls. The organisation of Roman Catholic schools is primarily on a diocesan basis under the general direction of the bishop, although many of the religious orders which conduct schools are Australia-wide and have their own internal organisation.

The majority of other non-government schools, sometimes known as 'private' or 'independent' schools, are conducted by, or are under the auspices of, various religious denominations, particularly the Church of England, Presbyterian and Methodist Churches. Others are conducted by the Baptist, Lutheran, Congregational, and Seventh-day Adventist Churches and by smaller religious groups. There are Jewish schools in several capital cities. A few non-government schools, including some of the foremost, are undenominational and conducted under the auspices of corporate bodies.

The methods adopted by the educational authorities to ensure an acceptable standard of education at non-government schools vary from State to State. In New South Wales, Victoria, Western Australia, and Tasmania these schools are regularly inspected. In Victoria and Tasmania, schools and teachers must be registered. In Queensland eight grammar schools which exist by statutory authority and are subsidised by the State are subject to annual inspection. Other non-government schools in Queensland and also those in South Australia are not subject to inspection.

The principals of a number of the larger non-government schools have formed organisations with both State and Australia-wide coverage, namely the Headmasters' Conference of the Independent Schools of Australia and the Association of Headmistresses of Independent Schools of Australia.

Schools and courses

Primary education in government schools. Though school attendance is not compulsory until the age of six, most Australian children begin school when they are five, attending infants schools or infants classes attached to a primary school. In some States the first year in the infants department is known as 'kindergarten'. The emphasis in infants classes is on the development of skills in language and numbers. There is a gradual shift towards more formal activities in the second and third years. Creative expression through drawing, dancing, handiwork, dramatisation, and painting and similar activities is encouraged. At the end of their infants school training most children are able to read with some fluency, carry out simple arithmetical operations founded on the basic number facts, and write in pencil.

At about the age of eight most children pass into the primary school proper, where they usually spend four or five years. Primary schools are normally provided when and where there is sufficient population to justify them. Irrespective of the size or the location of the school, standards of tuition do not vary appreciably, because teachers within a State follow similar courses of training and transfer freely between metropolitan and country areas. The Education Departments prescribe syllabuses of instruction, which are drawn up with the assistance of expert committees. The primary syllabuses have an emphasis on basic subjects like reading, writing, arithmetic, social studies, and oral language, but the teacher has some freedom to modify courses to suit local circumstances and the varying abilities of his students.

Children attend primary schools in their own districts, usually within walking distance of their homes, on five days each week. The school day is broken up into three or four sessions by a lunch break and by a morning and sometimes an afternoon recess. The total period of instruction is four and a half to five hours daily with individual subject lessons lasting twenty to thirty minutes. Periods are set aside for physical education and sport. One teacher generally has charge of a class and teaches it all the subjects set out in the curriculum for the particular grade.

Pupils do not, as a rule, sit for a public examination during or at the end of their primary course, and progression from primary to secondary school is automatic. Allocation to particular schools or particular courses is based on the recommendations of the headmaster, general ability tests, tests of achievement in the basic subjects, and parents' wishes. In South Australia pupils may proceed to secondary school on receiving the Progress Certificate, which is awarded on satisfactory completion of the seventh grade, the highest grade at primary level.

Secondary education in government schools. The age of transfer from a government primary to secondary school is usually between twelve and thirteen. Most secondary schools are co-educational, although separate schools for boys and girls are not uncommon in capital cities. In the cities and larger country centres secondary and primary courses are provided in separate schools, but in less populous areas secondary classes sometimes share buildings with primary classes.

The secondary student takes up new studies, such as foreign languages and technical or commercial subjects, and moves on to more specialised studies in natural and social sciences and mathematics. The study of basic subjects begun in primary school is continued. The actual subjects studied depend on the ability of the pupil and the type of school. A school day is divided into 'periods' and the children are taught by a number of teachers, each specialising in a particular subject or group of subjects.

In the past, to meet the varying abilities and needs of students, various kinds of secondary schools were established in which different types of education were provided, although in country areas secondary schools tended of necessity to be comprehensive and offered a full range of secondary courses. But following the re-examination by expert committees in all States of the problems associated with the provision of appropriate secondary education for all, significant changes in the structure and curricula of secondary schools are taking place. In New South Wales, for example, following a committee's recommendation that the secondary curriculum should offer a core of common basic education to all students, secondary schools have become comprehensive. Pupils of different aptitudes and interests in a given locality now attend the same secondary school, undertake this core of common basic studies, and in addition specialise according to their proven abilities and interests.

The most common type of secondary school is the comprehensive or multi-purpose high school, which offers a wide range of subjects. To cater for this diversity of subjects, most high schools now have modern facilities for the teaching of domestic science, commercial subjects, woodwork, and other technical subjects. In some States there are still, however, separate high schools specialising in technical, commercial or home science subjects. In some States there are also a few separate agricultural high schools, some of them residential. The curriculum consists of general educational subjects and practical farm training. There are also 'area' and 'rural' schools offering up to three years of secondary study, and in some States courses in agriculture are also given at high schools.

Primary and secondary education in non-government schools. Non-government schools follow curricula similar to those laid down by Education Departments and prepare their students for examinations conducted by public examining authorities. Most non-government schools are comprehensive type schools, providing a range of subjects and courses at various levels. Although there are similarities between non-government and government schools in the courses they provide, more emphasis is given to the religious training of pupils in denominational schools. A few schools, mostly Roman Catholic secondary schools, specialise in agricultural and technical courses. Non-government schools offer some facilities additional to those normally found in government schools, such as personal tuition in music, ballet, etc. A few are organised on 'experimental' lines.

Examinations

During the course of secondary education State-wide examinations are taken at two levels. The earlier examination qualifies pupils for entry to trade courses at technical colleges and agricultural colleges, to junior commercial positions in, for instance, insurance and banking, to nursing and secretarial courses, to lower grades of the public service, and to industry. The examination at the end of the secondary school course qualifies students for entry to teachers' colleges, the higher grades of the public service, and commercial occupations; this examination is also the qualification for entry to the university, certain subjects and combinations of subjects being set down as the matriculation requirements by the respective universities.

In most States the higher examination is controlled by a board consisting of representatives of the Department of Education, the universities, non-government schools, and sometimes of other bodies such as teachers' organisations. A brief description of the examinations in each State follows.

New South Wales. For pupils who commenced their secondary education in 1962 or later, the full secondary course is of six years duration, with a School Certificate Examination at the end of the fourth year, age about sixteen, and a Higher School Certificate Examination (Matriculation) after a further two years. The last Intermediate and Leaving Certificate Examinations under the old system were conducted in 1966. Now pupils who leave school before gaining their School Certificate receive a signed statement of attainment from their school principal.

Victoria. The Intermediate Examination taken at the end of the fourth secondary year, at about the age of sixteen, will be held for the last time in 1967. The School Leaving Examination is taken at the end of fifth year, and the Matriculation Examination at the end of sixth year. Pupils at approved non-government schools and certain government schools may be accredited for the Intermediate and Leaving by passing examinations set by their own schools.

Queensland. The Junior Public Examination is taken at the end of third year, at about the age of fifteen and a half. The Senior Public Examination conducted by the University of Queensland is taken at the end of fifth year, at about the age of seventeen and a half, and matriculation is obtained on results in this examination.

South Australia. The Intermediate Examination taken at the end of the third year, at about the age of fifteen and a half, will be held for the last time in 1968. The Leaving Examination is taken at the end of the fourth year and a Matriculation Examination is to be held at the end of the fifth year.

Western Australia. The Junior Certificate Examination is taken at the end of third year, at about the age of fifteen and a half. Students who pursue a less academic course may take the High School Certificate Examination at this level. The Leaving Certificate Examination is taken at the end of fifth year, at an average age of seventeen and a half, and matriculation is gained on results in this examination.

Tasmania. The Schools Board Certificate Examination is taken at the end of the fourth year, at about the age of sixteen and a half, and the Matriculation Examination conducted by the University of Tasmania at the end of the fifth or sixth year.

Numbers of schools, teachers and pupils

The statistics which follow relate generally to schools providing education according to the primary or secondary school curricula of the various State Education Departments, or both, whether provided in government or non-government schools. Junior technical schools, correspondence schools, and schools in institutional homes, hospitals and similar establishments are included. Institutions providing only pre-school education, senior technical and agricultural colleges, evening schools, continuation classes, and institutions such as business colleges and coaching establishments are, as a rule, excluded.

School censuses are conducted annually at or about the beginning of August throughout all States and Territories of Australia. The numbers of pupils in the tables which follow refer to enrolments at the school census date. The numbers of schools and teachers refer to the position at dates which vary from State to State and in some instances from year to year. While it has not been possible to present all figures on a uniform basis between States, continuity of the figures for any one State over the period of years shown has been maintained as far as possible. Particulars relating to senior technical colleges are given on pages 599–602.

Schools, teachers and pupils

The numbers of government and non-government schools, teachers and pupils for 1966 and earlier years are shown in the following tables.

NUMBERS OF SCHOOLS AND PUPILS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1966

Category of school	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
SCHOOLS									
Government	2,653	2,242	1,321	673	555	294	56	32	7,826
Non-government—									
Denominational—									
Church of England	33	33	20	12	9	4	..	3	114
Hebrew	3	7	..	..	1	..	..	..	11
Lutheran	3	8	3	13	..	..	1	..	28
Methodist	6	4	(a) 5	4	3	1	2	..	25
Presbyterian	13	14	6	2	2	2	..	..	39
Roman Catholic	662	483	296	130	174	50	10	15	1,820
Seventh-day Adventist	17	8	6	4	6	3	..	..	44
Other	..	4	1	2	2	1	3	..	13
Undenominational	57	18	9	5	3	3	5	..	100
Total, non-government	*794*	*579*	*346*	*172*	*200*	*64*	*21*	*18*	*2,194*
Grand total	**3,447**	**2,821**	**1,667**	**845**	**755**	**358**	**77**	**50**	**10,020**

(a) Presbyterian and Methodist Schools Association.

NUMBERS OF SCHOOLS AND PUPILS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1966—*continued*

Category of schoo }	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PUPILS (CENSUS ENROLMENT)									
Government . . .	672,508	523,786	270,236	210,435	146,888	72,461	8,307	16,642	1,921,263
Non-government—									
Denominational—									
Church of England .	12,045	15,522	5,565	4,334	3,693	1,843	..	1,208	44,210
Hebrew . . .	333	2,317	..	..	135	..	..	..	2,785
Lutheran . . .	234	642	893	1,495	..	..	134	..	3,398
Methodist . . .	2,868	4,146	(*a*)2,149	2,060	1,590	333	408	..	13,554
Presbyterian . .	5,301	8,296	1,055	1,495	1,220	587	..	..	17,954
Roman Catholic . .	186,242	145,237	71,514	26,242	31,030	10,592	1,514	6,051	478,422
Seventh-day Adventist .	1,122	612	325	129	471	128	..	..	2,787
Other . . .	..	2,342	147	429	167	994	234	..	4,313
Undenominational . .	6,329	3,741	3,873	1,252	99	266	84	..	15,644
Total, non-government .	*214,474*	*182,855*	*85,521*	*37,436*	*38,405*	*14,743*	*2,374*	*7,259*	*583,067*
Grand total . . .	**886,982**	**706,641**	**355,757**	**247,871**	**185,293**	**87,204**	**10,681**	**23,901**	**2,504,330**

(*a*) Presbyterian and Methodist Schools Association.

NUMBERS OF TEACHERS: STATES AND TERRITORIES, 1966(*a*)

State or Territory	Government schools			Non-government schools			All schools		
	Full-time	Part-time		Full-time	Part-time		Full-time	Part-time	
		No.	Eq. f.t.u. (*b*)		No.	Eq. f.t.u. (*b*)		No.	Eq. f.t.u. (*b*)
New South Wales . . .	27,898	1,056	520	6,717	(*e*)1,821	471	34,615	2,877	991
Victoria	20,788	*c* 2,275	*c* 1,357	5,844	1,237	313	26,632	3,512	1,670
Queensland	9,637	677	54	2,649	568	131	12,286	1,245	185
South Australia . . .	8,189	481	174	1,306	371	116	9,495	852	290
Western Australia . .	5,213	135	39	1,274	221	67	6,487	356	106
Tasmania	3,183	279	69	523	164	35	3,706	443	104
Northern Territory . .	340	13	2	(*d*) 75	..	..	415	13	2
Australian Capital Territory .	695	16	9	261	(*e*) 41	13	956	57	22
Total . . .	**75,943**	**4,932**	**2,224**	**18,649**	**4,423**	**1,146**	**94,592**	**9,355**	**3,370**

(*a*) Excludes teachers-in-training generally. (*b*) The methods used for calculating *equivalent full-time units* of part-time teaching vary from State to State, between government and non-government schools, and between primary and secondary schools within States. For most schools the information is based on either the total hours worked or total number of class periods taken in a week by part-time teachers, in relation to the normal hours worked or periods taken by full-time teachers. (*c*) A large proportion of male part-time teachers in Victoria are engaged in junior technical schools. A teacher is included as part-time if his teaching time at a junior technical school is less than 32 hours a week. (*d*) Excludes unqualified teachers and teaching assistants at mission schools. (*e*) Visiting teachers who attend more than one school are counted as part-time in each.

NUMBERS OF SCHOOLS AND PUPILS: AUSTRALIA, 1962 TO 1966

	1962	1963	1964	1965	1966
Schools—					
Government	7,941	7,910	7,872	7,844	7,826
Non-government . . .	2,178	2,193	2,205	2,221	2,194
Total schools . . .	*10,119*	*10,103*	*10,077*	*10,065*	*10,020*
Pupils(*a*)—					
Government	1,713,265	1,756,538	1,801,364	1,857,120	1,921,263
Non-government . . .	539,887	552,759	565,415	580,532	583,067
Total pupils . . .	*2,253,152*	*2,309,297*	*2,366,779*	*2,437,652*	*2,504,330*

(*a*) Census enrolment.

NUMBERS OF TEACHERS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1966(*a*)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Government schools—									
Full-time	27,898	20,788	9,637	8,189	5,213	3,183	340	695	75,943
Part-time—									
Number	1,056	(*b*)2,275	677	481	135	279	13	16	4,932
Eq. f.t.u.(*c*)	520	(*b*)1,357	54	174	39	69	2	9	2,224
Non-government schools—									
Baptist—									
Full-time	..	115	..	(*d*) 24	..	..	..	..	139
Part-time—									
Number	..	36	..	(*d*) 2	..	..	..	..	38
Eq. f.t.u. (*c*)	..	13	..	..	..	..	..	..	13
Church of England—									
Full-time	697	887	301	232	200	100	..	79	2,496
Part-time—									
Number	223	176	49	62	71	36	..	11	628
Eq. f.t.u. (*c*)	90	58	20	24	24	8	..	4	228
Hebrew—									
Full-time	21	145	..	..	7	..	..	..	173
Part-time—									
Number	6	20	..	..	1	..	..	..	27
Eq. f.t.u.(*c*)	2	8	..	..	..	..	..	..	10
Lutheran—									
Full-time	13	30	41	65	..	..	5	..	154
Part-time—									
Number	6	3	2	25	..	..	..	..	36
Eq. f.t.u.(*c*)	2	1	1	6	..	..	..	..	10
Methodist—									
Full-time	147	232	(*e*) 100	99	88	16	16	..	698
Part-time—									
Number	46	27	(*e*) 25	25	30	11	..	..	164
Eq. f.t.u.(*c*)	25	9	(*e*) 7	11	12	4	..	..	68
Presbyterian—									
Full-time	304	468	73	75	70	38	..	..	1,028
Part-time—									
Number	56	109	12	20	9	16	..	..	222
Eq. f.t.u.(*c*)	23	38	3	10	3	5	..	..	82
Roman Catholic—									
Full-time	4,996	3,692	1,945	740	874	290	36	182	12,755
Part-time—									
Number	1,373	790	451	216	102	91	..	30	3,053
Eq. f.t.u.(*c*)	282	155	91	53	24	16	..	9	630
Seventh-day Adventist—									
Full-time	54	36	13	10	23	9	..	..	145
Part-time—									
Number	20	4	2	1	8	3	..	..	38
Eq. f.t.u.(*c*)	6	2	..	..	4	..	..	..	12
Other denominational—									
Full-time	..	13	5	..	6	57	13	..	94
Part-time—									
Number	..	7	..	..	..	4	..	..	11
Eq. f.t.u.(*c*)	..	3	..	..	..	2	..	..	5
Undenominational—									
Full-time	485	226	171	61	6	13	5	..	967
Part-time—									
Number	91	65	27	20	..	3	..	..	206
Eq. f.t.u.(*c*)	41	26	9	12	..	..	..	..	88
Total, non-government schools—									
Full-time	*6,717*	*5,844*	*2,649*	*1,306*	*1,274*	*523*	(*f*) *75*	*261*	*18,649*
Part-time—									
Number	(*g*)*1,821*	*1,237*	*568*	*371*	*221*	*164*	..	(*g*) *41*	*4,423*
Eq. f.t.u.(c)	*471*	*313*	*131*	*116*	*67*	*35*	..	*13*	*1,146*
Grand total—									
Full-time	34,615	26,632	12,286	9,495	6,487	3,706	415	956	94,592
Part-time—									
Number	2,877	3,512	1,245	852	356	443	13	57	9,355
Eq. f.t.u.(*c*)	991	1,670	185	290	106	104	2	22	3,370

(*a*) Excludes teachers-in-training generally. (*b*) A large proportion of male part-time teachers in Victoria are engaged in junior technical schools. A teacher is included as part-time if his teaching time at a junior technical school is less than 32 hours a week. (*c*) For basis of calculating *equivalent full-time units* of part-time teaching *see* footnote (*b*) page 587. (*d*) Baptist and Congregational. (*e*) Schools conducted by the Presbyterian and Methodist Schools Association. (*f*) Excludes unqualified teachers and teaching assistants at mission schools. (*g*) Visiting teachers who attend more than one school are counted as part-time in each.

NUMBERS OF TEACHERS: GOVERNMENT AND NON-GOVERNMENT SCHOOLS (*a*) STATES AND TERRITORIES, 1962 TO 1966

	Government schools			Non-government schools			All schools		
	Number of full-time teachers	Part-time teachers		Number of full-time teachers	Part-time teachers		Number of full-time teachers	Part-time teachers	
		Number	Eq. f.t.u. (*b*)		Number	Eq. f.t.u. (*b*)		Number	Eq. f.t.u. (*b*)
New South Wales—									
1962	(*c*)23,330			6,019	(*d*) 1,555	n.a.	n.a.	n.a.	n.a.
1963	(*c*)24,672			6,215	(*d*) 1,586	n.a.	n.a.	n.a.	n.a.
1964	(*c*)25,993			6,541	(*d*) 1,621	n.a.	n.a.	n.a.	n.a.
1965	26,831	878	415	6,842	(*d*) 1,743	443	33,673	2,621	858
1966	27,898	1,056	520	6,717	(*d*) 1,821	471	34,615	2,877	991
Victoria—									
1962	17,724		n.a.	5,102		n.a.	22,826		n.a.
1963	17,373	(*e*) 1,668	n.a.	5,038	978	n.a.	22,411	2,646	n.a.
1964	19,026	(*e*) 1,568	n.a.	5,326	1,004	n.a.	24,352	2,572	n.a.
1965	20,083	(*e*) 1,816	1,134	5,551	1,149	278	25,634	2,965	1,412
1966	20,788	(*e*) 2,275	1,357	5,844	1,237	313	26,632	3,512	1,670
Queensland—									
1962	8,583	805	n.a.	2,331	459	n.a.	10,914	1,264	n.a.
1963	8,810	854	n.a.	2,333	468	n.a.	11,143	1,322	n.a.
1964	9,058	819	n.a.	2,472	539	n.a.	11,530	1,358	n.a.
1965	9,316	696	56	2,543	492	107	11,859	1,188	163
1966	9,637	677	54	2,649	568	131	12,286	1,245	185
South Australia—									
1962	6,312	432	n.a.	1,130	324	n.a.	7,442	756	n.a.
1963	6,895	431	n.a.	1,165	319	n.a.	8,060	750	n.a.
1964	7,340	477	n.a.	1,231	329	n.a.	8,571	806	n.a.
1965	7,872	468	143	1,252	355	114	9,124	823	257
1966	8,189	481	174	1,306	371	116	9,495	852	290
Western Australia—									
1962	4,241	91	18	1,097	96	n.a.	5,338	187	n.a.
1963	4,471	74	17	1,148	n.a.	44	5,619	n.a.	61
1964	4,713	103	16	1,188	141	32	5,901	244	48
1965	4,934	119	39	1,247	186	46	6,181	305	85
1966	5,213	135	39	1,274	221	67	6,487	356	106
Tasmania—									
1962	2,797	111	n.a.	503	94	n.a.	3,300	205	n.a.
1963	2,919	183	n.a.	509	85	n.a.	3,428	268	n.a.
1964	3,016	141	n.a.	503	132	n.a.	3,519	273	n.a.
1965	3,131	194	55	509	r157	29	r3,640	r351	84
1966	3,183	279	69	523	164	35	3,706	443	104
Northern Territory—									
1962	182	2	n.a.	(*f*) 61	1	n.a.	243	3	n.a.
1963	207	4	n.a.	(*f*) 68	1	n.a.	275	5	n.a.
1964	r241	6	n.a.	(*f*) r63	..	n.a.	304	6	n.a.
1965	r281	4	1	(*f*) 72	1	..	r353	5	1
1966	340	13	2	(*f*) 75	..	..	415	13	2
Australian Capital Territory—									
1962		(*c*)463		160	(*d*) 32	n.a.	n.a.	n.a.	n.a.
1963		(*c*)476		183	(*d*) 18	n.a.	n.a.	n.a.	n.a.
1964		(*c*)554		215	(*d*) 27	n.a.	n.a.	n.a.	n.a.
1965	596	34	24	240	(*d*) 28	6	836	62	30
1966	695	16	9	261	(*d*) 41	13	956	57	22

(*a*) Excludes teachers-in-training generally. (*b*) For basis of calculating *equivalent full-time units* for part-time teachers, *see* footnote (*b*) on page 587. (*c*) Includes numbers of full-time teachers (including casual teachers) and part-time casual teachers expressed in equivalent full-time units, for government schools. (*d*) Visiting teachers who attend more than one school are counted as part-time in each school visited. (*e*) A large proportion of male part-time teachers in Victoria are engaged in junior technical schools. A teacher is included as part-time if his teaching time at a junior technical school is less than 32 hours a week. (*f*) Excludes unqualified teachers and teaching assistants at mission schools.

Ages of pupils

The ages of pupils at school census dates for 1966 and earlier years are shown in the following tables.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY AGE AND SEX AUSTRALIA, 1966

(Census enrolment)

Age last birthday (years)	Government schools			Non-government schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total (a)
Under 6	82,397	77,453	159,850	21,825	22,042	43,867	104,222	99,495	203,717
6	95,227	89,259	184,486	25,482	25,511	50,993	120,709	114,770	235,479
7	94,192	89,102	183,294	26,200	26,364	52,564	120,392	115,466	235,858
8	92,727	87,004	179,731	25,176	25,837	51,013	117,903	112.841	230,744
9	90,755	84,909	175,664	25,006	25,869	50,875	115,761	110,778	226,539
10	90,624	83,204	173,828	24,755	25,602	50,357	115,379	108,806	224,185
11	88,357	82,374	170,731	24,465	25,485	49,950	112,822	107,859	220,681
12	85,589	78,140	163,729	24,228	26,342	50,570	109,817	104,482	214,299
13	85,970	77,866	163,836	23,836	27,084	50,920	109,806	104,950	214,756
14	83,517	75,183	158,700	22,091	25,096	47,187	105,608	100,279	205,887
15	62,573	52,280	114,853	19,307	20,596	39,903	81,880	72,876	154,756
16	36,319	26,067	62,386	14,458	13,391	27,849	50,777	39,458	90,235
17	14,811	8,540	23 351	7,790	5,095	12,885	22,601	13,635	36,236
18 and over	4,935	1,889	6,824	3,078	1,056	4,134	8,013	2,945	10,958
Total	1,007,993	913,270	1,921,263	287,697	295,370	583,067	1,295,690	1,208,640	2,504,330

(*a*) Includes Aboriginal children.

SCHOOLS: PUPILS, BY AGE, STATES AND TERRITORIES, 1966

(Census enrolment)

Age last birthday (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
Under 6	85,138	61,149	19,989	19,152	7,744	6,866	1,143	2,536	203,717
6	82,907	64,476	34,894	23,465	18,194	8,116	1,105	2,322	235,479
7	83,319	65,046	34,671	22,870	18,103	8,342	1,186	2,321	235,858
8	82,007	63,221	33,636	22,320	17,991	8,199	1,116	2,254	230,744
9	79,585	62,386	33,460	22,220	17,927	7,839	1,050	2,072	226,539
10	77,761	61,644	33,316	21,969	18,269	8,170	1,014	2,042	224,185
11	76,983	60,997	32,999	21,463	17,784	7,582	973	1,900	220,681
12	76,563	58,267	30,547	21,488	17,197	7,445	893	1,899	214,299
13	76,485	59,645	29,513	21,654	17,289	7,495	775	1,900	214,756
14	73,309	56,514	29,611	20,831	15,887	7,339	662	1,734	205,887
15	52,933	45,374	22,036	16,401	10,549	5,595	425	1,443	154,756
16	29,179	29,620	12,357	9,936	5,172	2,739	257	975	90,235
17	8,887	13,733	6,272	3,295	2,495	1,107	66	381	36,236
18 and over	1,926	4,569	2,456	807	692	370	16	122	10,958
Total	886,982	706,641	355,757	247,871	185,293	87,204	10,681	23,901	2,504,330

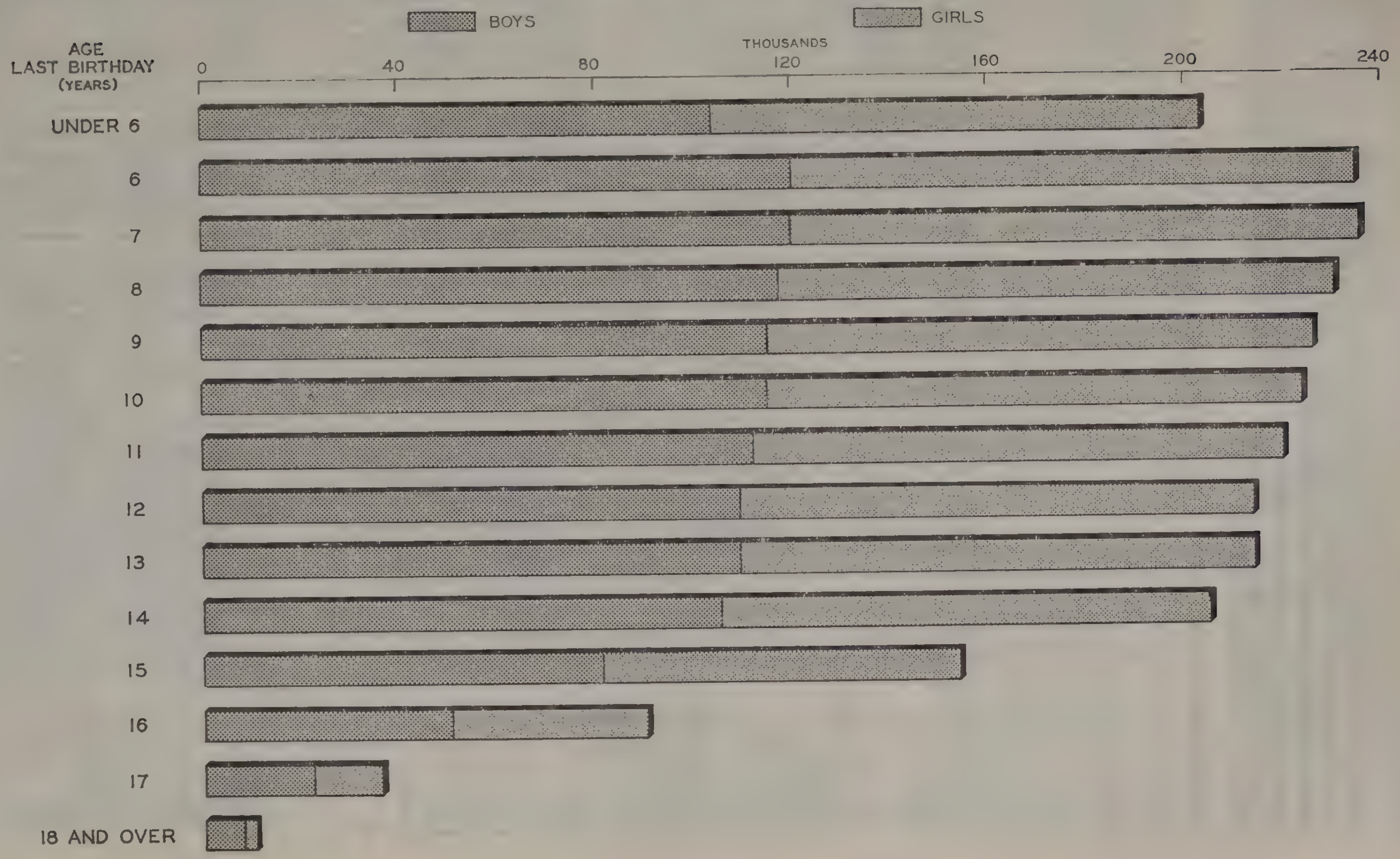
(*a*) Includes Aboriginal children.

SCHOOLS: PUPILS, BY AGE AND SEX, AUSTRALIA, 1962 TO 1966

(Census enrolment)

Age last birthday (years)	1962		1963		1964		1965 (*b*)		1966 (*b*)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Under 6	91,801	88,208	95,454	91,544	97,651	93,404	100,399	95,811	104,222	99,495
6	110,551	104,032	112,486	107,528	114,888	109,812	118,565	113,600	120,709	114,770
7	108,735	104,722	112,251	105,595	113,685	108,423	116,512	111,748	120,392	115,466
8	106,567	102,267	109,026	104,940	111,882	106,358	114,660	109,538	117,903	112,841
9	107,531	103,527	106,932	102,944	109,601	105,826	113,810	107,719	115,761	110,778
10	106,418	101,299	109,020	104,124	108,446	103,905	111,359	107,105	115,379	108,806
11	105,413	100,722	107,441	102,169	109,593	105,228	110,026	104,874	112,822	107,859
12	104,823	99,480	105,461	101,110	107,342	102,220	110,091	105,816	109,817	104,482
13	100,160	95,567	104,744	99,760	105,434	100,668	107,850	102,728	109,806	104,950
14	93,321	86,377	93,578	87,336	99,617	94,053	101,907	97,432	105,608	100,279
15	74,412	61,759	71,323	59,772	71,619	61,317	77,735	68,958	81,880	72,876
16	35,384	24,920	44,182	32,741	43,843	33,045	46,095	35,604	50,777	39,458
17	15,147	8,670	17,709	10,117	22,826	13,642	22,624	13,936	22,601	13,635
18 and over	4,947	1,476	5,428	1,693	7,072	2,290	8,249	2,901	8,013	2,945
Not stated*a*	2,436	2,480	1,412	1,477	1,549	1,540	. .	. .	. .	. .
Total	**1,167,646**	**1,085,506**	**1,196,447**	**1,112,850**	**1,225,048**	**1,141,731**	**1,259,882**	**1,177,770**	**1,295,690**	**1,208,640**

(*a*) Comprises Aboriginal children at special schools whose ages were not collected. (*b*) Aboriginal children included in specified age groups.



SCHOOLS: AGES OF PUPILS, AUSTRALIA, 1966

PLATE 36

Grades of pupils

The numbers of pupils enrolled in grades in each State and Territory are shown in the following table. The grading of pupils differs for the various school systems in Australia because of the differences in curricula set by Education Departments. In addition, the methods of allocating classes to grades vary from State to State, and there are also differences in the administrative methods of aggregating grades of a more or less similar nature. The figures presented in these tables represent essentially the system of grading adopted in each different State and are therefore not comparable between States.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY GRADE, ETC. AND SEX, STATES AND TERRITORIES, 1966

Grade, year or form	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
NEW SOUTH WALES									
Infants—									
Kindergarten	35,449	32,694	68,143	10,700	10,648	21,348	46,149	43,342	89,491
1	39,116	35,748	74,864	10,460	10,200	20,660	49,576	45,948	95,524
2	34,615	32,713	67,328	10,221	9,987	20,208	44,836	42,700	87,536
Primary—									
3	33,537	31,437	64,974	9,956	10,081	20,037	43,493	41,518	85,011
4	33,039	30,527	63,566	9,724	9,713	19,437	42,763	40,240	83,003
5	31,690	29,882	61,572	9,434	9,708	19,142	41,124	39,590	80,714
6	30,984	29,444	60,428	9,504	9,793	19,297	40,488	39,237	79,725
Special primary grades	4,072	2,736	6,808	1,068	949	2,017	5,140	3,685	8,825
Secondary—									
1st (or 7)	31,452	28,966	60,418	8,933	9,830	18,763	40,385	38,796	79,181
2nd (or 8)	29,707	27,449	57,156	8,573	9,504	18,077	38,280	36,953	75,233
3rd (or 9)	23,010	21,413	44,423	7,641	8,260	15,901	30,651	29,673	60,324
4th	14,853	12,175	27,028	6,264	6,399	12,663	21,117	18,574	39,691
5th	7,535	4,940	12,475	3,537	2,525	6,062	11,072	7,465	18,537
5th year repeat	1,606	704	2,310	769	93	862	2,375	797	3,172
Special secondary grades	742	273	1,015	..	..	..	742	273	1,015
Total	**351,407**	**321,101**	**672,508**	**106,784**	**107,690**	**214,474**	**458,191**	**428,791**	**886,982**
VICTORIA									
1(*a*)	52,913	48,485	101,398	15,331	15,199	30,530	68,244	63,684	131,928
2	25,433	23,283	48,716	8,731	8,463	17,194	34,164	31,746	65,910
3	24,322	22,699	47,021	8,312	8,214	16,526	32,634	30,913	63,547
4	24,123	22,309	46,432	8,054	8,216	16,270	32,177	30,525	62,702
5	23,891	21,964	45,855	8,099	8,288	16,387	31,990	30,252	62,242
6	23,186	21,432	44,618	7,980	8,187	16,167	31,166	29,619	60,785
Ungraded(*b*)	1,398	850	2,248	102	154	256	1,500	1,004	2,504
7 or I	24,530	21,542	46,072	6,819	8,379	15,198	31,349	29,921	61,270
8 or II	24,317	21,352	45,669	6,513	7,972	14,485	30,830	29,324	60,154
III	22,107	18,580	40,687	5,985	7,402	13,387	28,092	25,982	54,074
IV	16,818	13,913	30,731	5,388	6,158	11,546	22,206	20,071	42,277
V	10,153	7,332	17,485	4,545	4,541	9,086	14,698	11,873	26,571
VI	3,962	2,892	6,854	3,337	2,486	5,823	7,299	5,378	12,677
Total	**277,153**	**246,633**	**523,786**	**89,196**	**93,659**	**182,855**	**366,349**	**340,292**	**706,641**
QUEENSLAND									
Primary—									
Preparatory	..	..	..	338	298	636	338	298	636
I	16,746	15,124	31,870	4,754	4,497	9,251	21,500	19,621	41,121
II	15,262	13,971	29,233	4,225	4,204	8,429	19,487	18,175	37,662
III	14,591	13,493	28,084	3,874	3,798	7,672	18,465	17,291	35,756
IV	14,259	13,430	27,689	3,694	3,730	7,424	17,953	17,160	35,113
V	14,214	13,013	27,227	3,613	3,819	7,432	17,827	16,832	34,659
VI	13,581	12,910	26,491	3,650	3,811	7,461	17,231	16,721	33,952
VII	13,268	12,547	25,815	3,605	3,835	7,440	16,873	16,382	33,255
Ungraded	1,154	570	1,724	41	34	75	1,195	604	1,799
Secondary—									
1st	12,445	11,380	23,825	3,960	4,236	8,196	16,405	15,616	32,021
2nd	11,462	10,706	22,168	3,907	4,006	7,913	15,369	14,712	30,081
3rd	9,059	8,493	17,552	3,370	3,289	6,659	12,429	11,782	24,211
4th	2,885	2,032	4,917	2,121	1,661	3,782	5,006	3,693	8,699
5th	2,118	1,523	3,641	1,899	1,252	3,151	4,017	2,775	6,792
Total	**141,044**	**129,192**	**270,236**	**43,051**	**42,470**	**85,521**	**184,095**	**171,662**	**355,757**

(*a*) In Victoria children who are expected to reach five years of age by 1 July are admitted at the beginning of the school year. The younger children may not reach grade 2 until they have been at school for two years. (*b*) Pupils at certain special schools classified as primary.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY GRADE, ETC. AND SEX, STATES, ETC., 1966—*continued*

Grade, year or form	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
SOUTH AUSTRALIA									
Pre-primary	..	..	..	99	150	249	99	150	249
Kindergarten	2,379	2,161	4,540	..	..	..	2,379	2,161	4,540
I	12,814	11,628	24,442	2,080	2,077	4,157	14,894	13,705	28,599
II	10,837	10,217	21,054	1,594	1,762	3,356	12,431	11,979	24,410
III	10,647	9,744	20,391	1,591	1,702	3,293	12,238	11,446	23,684
IV	10,478	9,877	20,355	1,576	1,670	3,246	12,054	11,547	23,601
V	10,321	9,767	20,088	1,614	1,771	3,385	11,935	11,538	23,473
VI	10,211	9,447	19,658	1,642	1,696	3,338	11,853	11,143	22,996
VII	9,701	9,101	18,802	1,649	1,738	3,387	11,350	10,839	22,189
Ungraded(*a*)	1,323	842	2,165	10	16	26	1,333	858	2,191
VIII or 1st	10,124	9,083	19,207	1,607	1,752	3,359	11,731	10,835	22,566
IX or 2nd	8,924	8,277	17,201	1,497	1,734	3,231	10,421	10,011	20,432
X or 3rd	7,545	6,608	14,153	1,499	1,698	3,197	9,044	8,306	17,350
XI or 4th	3,695	2,771	6,466	1,179	1,021	2,200	4,874	3,792	8,666
5th	1,233	648	1,881	647	365	1,012	1,880	1,013	2,893
Ungraded(*b*)	12	20	32	..	..	..	12	20	32
Total	**110,244**	**100,191**	**210,435**	**18,284**	**19,152**	**37,436**	**128,528**	**119,343**	**247,871**
WESTERN AUSTRALIA									
Primary—									
Kindergarten	..	..	..	153	170	323	153	170	323
1	8,599	7,642	16,241	1,932	1,963	3,895	10,531	9,605	20,136
2	7,800	7,349	15,149	1,754	1,825	3,579	9,554	9,174	18,728
3	7,540	7,128	14,668	1,646	1,771	3,417	9,186	8,899	18,085
4	7,772	7,111	14,883	1,644	1,681	3,325	9,416	8,792	18,208
5	7,811	6,868	14,679	1,458	1,723	3,181	9,269	8,591	17,860
6	7,574	7,105	14,679	1,540	1,780	3,320	9,114	8,885	17,999
7	6,911	6,531	13,442	1,509	1,798	3,307	8,420	8,329	16,749
Special classes(*c*)	863	383	1,246	..	..	..	863	383	1,246
Secondary—									
1	7,035	6,416	13,451	1,822	2,138	3,960	8,857	8,554	17,411
2	6,522	5,917	12,439	1,627	1,957	3,584	8,149	7,874	16,023
3	5,329	4,424	9,753	1,517	1,733	3,250	6,846	6,157	13,003
4	1,658	1,296	2,954	933	887	1,820	2,591	2,183	4,774
5	1,127	770	1,897	789	655	1,444	1,916	1,425	3,341
Special classes(*c*)	308	193	501	..	..	..	308	193	501
Special schools(*c*)	555	351	906	..	..	..	555	351	906
Total	**77,404**	**69,484**	**146,888**	**18,324**	**20,081**	**38,405**	**95,728**	**89,565**	**185,293**
TASMANIA									
Pre-school	1,251	1,196	2,447	50	35	85	1,301	1,231	2,532
Primary—									
Kindergarten	1,137	1,061	2,198	108	124	232	1,245	1,185	2,430
1	4,895	4,482	9,377	989	991	1,980	5,884	5,473	11,357
2	3,820	3,516	7,336	622	633	1,255	4,442	4,149	8,591
3	3,638	3,315	6,953	627	639	1,266	4,265	3,954	8,219
4	3,676	3,374	7,050	531	687	1,218	4,207	4,061	8,268
5	3,598	3,357	6,955	614	653	1,267	4,212	4,010	8,222
6	3,280	3,163	6,443	618	690	1,308	3,898	3,853	7,751
Secondary—									
I	3,392	3,220	6,612	669	751	1,420	4,061	3,971	8,032
II	3,319	3,093	6,412	690	788	1,478	4,009	3,881	7,890
III	2,885	2,711	5,596	589	662	1,251	3,474	3,373	6,847
IV	1,659	1,368	3,027	568	653	1,221	2,227	2,021	4,248
V	392	352	744	248	207	455	640	559	1,199
VI	348	223	571	160	117	277	508	340	848
Special schools(*c*)	452	288	740	..	30	30	452	318	770
Total	**37,742**	**34,719**	**72,461**	**7,083**	**7,660**	**14,743**	**44,825**	**42,379**	**87,204**

(*a*) Pupils in special centres and classes at primary levels. (*b*) Speech and hearing classes at secondary level. (*c*) For physically and mentally, etc. handicapped children.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY GRADE, ETC. AND SEX, STATES, ETC., 1966—*continued*

Grade, year or form	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
NORTHERN TERRITORY									
Kindergarten	27	17	44	..	..	..	27	17	44
I	609	483	1,092	85	82	167	694	565	1,259
II	404	358	762	77	67	144	481	425	906
III	314	302	616	53	70	123	367	372	739
IV	365	312	677	65	58	123	430	370	800
V	309	269	578	44	42	86	353	311	664
VI	293	293	586	42	57	99	335	350	685
VII	254	235	489	35	43	78	289	278	567
Ungraded(*a*)	15	13	28	..	..	..	15	13	28
VIII or 1st	214	210	424	23	21	44	237	231	468
IX or 2nd	170	168	338	5	13	18	175	181	356
X or 3rd	125	130	255	5	4	9	130	134	264
XI or 4th	45	38	83	..	7	7	45	45	90
5th	12	5	17	..	..	..	12	5	17
Ungraded(*b*)	1,162	1,156	2,318	731	745	1,476	1,893	1,901	3,794
Total	**4,318**	**3,989**	**8,307**	**1,165**	**1,209**	**2,374**	**5,483**	**5,198**	**10,681**
AUSTRALIAN CAPITAL TERRITORY									
Infants—									
Kindergarten	1,031	943	1,974	422	386	808	1,453	1,329	2,782
1	947	924	1,871	388	339	727	1,335	1,263	2,598
2	913	806	1,719	366	325	691	1,279	1,131	2,410
Primary—									
3	821	745	1,566	354	321	675	1,175	1,066	2,241
4	787	764	1,551	301	304	605	1,088	1,068	2,156
5	764	768	1,532	263	296	559	1,027	1,064	2,091
6	708	632	1,340	291	299	590	999	931	1,930
Special primary grades(*a*)	91	55	146	..	..	..	91	55	146
Secondary—									
1st	679	661	1,340	348	288	636	1,027	949	1,976
2nd	668	586	1,254	309	314	623	977	900	1,877
3rd	508	514	1,022	288	270	558	796	784	1,580
4th	374	332	706	246	190	436	620	522	1,142
5th	283	188	471	196	117	313	479	305	784
5th year repeat	107	43	150	38	..	38	145	43	188
Total	**8,681**	**7,961**	**16,642**	**3,810**	**3,449**	**7,259**	**12,491**	**11,410**	**23,901**

(*a*) Opportunity classes. (*b*) Mainly Aboriginal children at special schools at missions and pastoral stations.

Teacher training and recruitment

Teachers for government schools

Recruitment of teachers. The teacher shortage evident in past years has now been overcome to a certain extent. Some States have no difficulty in recruiting and training sufficient staff to meet the present needs of primary schools. Despite expanded training programmes the shortage of secondary school teachers has proved a greater problem, especially in mathematics and science.

State Education Departments recruit most prospective teachers for government service from students leaving schools after a secondary course. Each Department offers training awards annually on the basis of academic merit and personal suitability. The traineeships cover the cost of a teacher training course (which may include university studies) and provide a living allowance. Students are usually required to enter into a bond to serve for a specified number of years in the government schools of the State where they have trained. In some States intending teachers can obtain a scholarship at Intermediate Certificate level to enable them to complete teachers' college entrance requirements. Such an award entails a bond of service for a longer period.

Training of primary school teachers. In most States teachers for government primary schools are trained in teachers' training colleges controlled and administered by the State Education Departments. These colleges are described on page 621. Generally, the duration of courses for primary teachers is two years; but several States are introducing a minimum three-year course for primary teachers. The basic subjects taken in the various courses are history and principles of education, general and special methods of teaching in the primary school, school organisation, and educational psychology. In addition, students undertake courses in English (including speech training), mathematics, handicrafts, music, art, social studies, natural science, and physical and health education. Optional subjects may include dramatic art, visual aids, and so on. Supervised practice teaching in schools and the observation of demonstration lessons form part of all training courses. Since primary teachers in Australia may be called upon at some time to teach grouped classes in a small school or a 'one-teacher' school, special training for this kind of work is included in their course.

Training of secondary school teachers. Secondary teachers are normally specialists in a combination of subjects, such as English and history, modern languages, or mathematics and science. Intending secondary school teachers are normally required to complete a university degree and a year of professional training qualifying for a Diploma in Education. The degree courses followed are usually in arts, science, or economics, with the major studies providing the essential background for future subject teaching. During the post-graduate or professional year the student takes such subjects as the history and principles of education, comparative education, educational psychology, and special teaching methods. Training also includes practice teaching under the supervision of teachers college and university staff, and the observation of demonstration lessons.

At several Australian universities, students wishing to take up teaching as a profession can receive their professional training along with the study of their teaching subjects as part of a first degree course in Education. The time taken to complete such a Bachelor of Education degree course is four years.

Training for specialist teaching. Teachers of specialist subjects, such as music, art, manual arts, domestic science, and commercial subjects, receive from two to five years training which varies according to the institution concerned and the type of secondary school in which the teacher is to serve. In several States the shorter courses are provided wholly by the teachers colleges. In five States teachers of music receive their specialist training at conservatoria of music. Where the specialist course is given at an institution other than the teachers college—e.g. at a university, technical college, or conservatorium of music—as is usual for teachers of specialist subjects in high schools, trainees are required to attend teachers college or university lectures in education, and in some cases the specialist course is followed by a year of professional training. Courses designed to train physical education teachers are offered in universities in all States, and in four States at a teachers college as well.

Training for teachers of agricultural subjects in secondary schools is available in five States and consists of either an agricultural college diploma or a university degree course together with professional training. In New South Wales a two-year teachers college course in agriculture is available, and in Victoria there is a two-year agricultural college diploma course which follows on the normal two-year primary teachers course. Teachers of technical subjects in secondary schools may be trained in manual or industrial arts courses of two to four years duration, at teachers colleges, technical colleges, or, in one State, at a university. These courses include basic training in such subjects as wood and metal work, and geometrical drawing. In Victoria there is a separate Technical Teachers' College. Some teachers of trade subjects in technical schools are recruited from the ranks of qualified tradesmen engaged in industry or commerce. These teachers upon appointment usually receive instruction in classroom teaching techniques and procedures.

In-service training. As almost all teachers now enter the profession by way of teachers colleges or universities, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training. In-service training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evening. In some States in-service courses for teachers in remote areas are provided by correspondence. Courses consist of discussions and lectures given by senior staff members of Education Departments and university and teachers college lecturers on such subjects as classroom techniques and supervision, librarianship, visual aids, music, arts and crafts, and physical education. In some States there are also in-service courses for special groups of teachers such as headmasters or teachers in one-teacher schools. In addition, district inspectors are responsible for organising short conferences of teachers, where professional topics are discussed. Education Departments encourage teachers to pursue university courses and in some States pay the cost of courses undertaken by selected teachers.

In 1966 and 1967 groups of Australian teachers again attended refresher courses in New Caledonia for Australian and New Zealand teachers of French. These courses were offered to the Australian Government by the French Government. The official publications of the Education Departments contain articles dealing with educational theory and practice. Magazines of the teachers' organisations, which reach the majority of government teachers, also contain articles of this type.

Status of teachers. Most teachers in governmental schools are permanent public servants and have security of tenure, superannuation rights, and the right of appeal in matters of promotion. The centralised education systems and the general policy of providing fully trained teachers for both city and country areas mean that teachers are subject to transfer to any part of the State in which they serve. It is common for a teacher's first appointment to be to a country school.

In each State there is a union of State school teachers and these together form a federal body, the Australian Teachers' Federation. Their aim is to advance the teachers' status and conditions and to stimulate community interest in educational problems.

Training of non-government school teachers

Teachers for non-government schools receive their training in a number of ways. The Roman Catholic Church staffs both its primary and secondary schools mainly with members of religious orders whose training has been obtained in conformity with the requirements of the particular order concerned. In recent years there has been a growth in the number of lay teachers being employed in Catholic schools, and training of students to become lay primary teachers has been instituted. Secondary teachers receive their academic training mostly through courses provided by Australian universities.

Other non-government schools tend to recruit their staffs from teachers who have already obtained qualifications in Australia or overseas. In New South Wales and Victoria non-government school authorities offer courses designed specially for teachers in their schools. Non-government schools recruit also university graduates, who are then given professional guidance by senior members of the school staff. In some instances private students may enrol at government teachers colleges on payment of a fee, but the number of places available is limited. Some teachers destined for non-government schools train in this way.

During vacations many non-government teachers attend in-service training courses organised by Education Departments. In recent years vacation courses have been provided by bodies other than Education Departments for teachers from both government and non-government schools. For example, an independent body, the Science Foundation for Physics within the University of Sydney, has provided such courses for teachers of science in secondary schools in New South Wales.

The training of pre-school teachers is carried out in five States in kindergarten training colleges set up by the Kindergarten Unions. These are described on page 621.

Other aspects of school education

Information relating to school medical and dental services is given in the chapter Public Health, and particulars of school savings banks in the chapter Private Finance.

Provisions for isolated areas

Although the task of bringing education to isolated areas in Australia presents problems, all education authorities have aimed at providing opportunities for country children comparable to those available to city children. Country children follow the same curricula (with local adaptation, if desirable) and are under the guidance of teachers who are trained for service in country and city schools alike.

In areas where there are sufficient children of school age a 'one-teacher' school may be formed with all primary grades in a single classroom under the control of the one teacher. Special training is given to teachers undertaking work of this kind. Children who complete a primary course in a one-teacher school and cannot attend a secondary school may do secondary correspondence lessons under the teacher's supervision.

In districts where a number of small centres are scattered around a larger centre or country town the tendency is to close the one-teacher schools and transport pupils each day by buses to a 'consolidated' school in the larger centre. Consolidated schools provide primary instruction and from two to four years of post-primary instruction. The post-primary curriculum adopted is usually directed towards practical activities and training in subjects bearing on the primary industries of the locality.

Where a group of children is too small to warrant the establishment of a one-teacher school at public expense, a 'subsidised' school may be opened. The Education Department pays part of the cost and in some States appoints a teacher. Some States also administer 'provisional' schools, which are completely financed by the Government but which are not large enough, or sufficiently assured of adequate continued attendance of pupils, to warrant classification as permanent schools.

Correspondence schools. These have been established in each State capital city to meet the needs of children whose daily attendance at school is prevented by distance between home and school, by illness or by physical disability. The correspondence schools also cater for inmates of penal institutions, Australian children overseas, pupils of other schools in which particular courses are not available, student teachers, members of the Defence Forces, and other adults completing their secondary education. Where children are involved, lessons are done with the help of a supervisor, usually a member of the child's family, and posted back to the correspondence school in the capital city, where they are corrected and returned with helpful comments. Every endeavour is made to maintain a personal link between teacher and pupil. Correspondence schools began with primary grades only, but were soon extended to cater for secondary pupils, and it is now possible to do a complete secondary course to matriculation standard by correspondence. Each year more than 20,000 students receive all or part of their instruction by correspondence.

Schools of the air. These are intended to give the outback child of school age some of the benefits of school life and to supplement correspondence education. Using the two-way wireless equipment developed first by the Royal Flying Doctor Service, children hundreds of miles apart participate in the same lesson, and teacher and pupils can talk directly with each other. The first school of the air was established in 1950 at Alice Springs in the Northern Territory; it has been followed by similar schools at Broken Hill in the far west of New South Wales; Ceduna and Port Augusta in South Australia; Charleville, Mount Isa and Charters Towers in Queensland; and Meekatharra, Derby, Kalgoorlie, and Port Hedland in Western Australia. These eleven schools serve children in an area of a million square miles.

Handicapped children

Special provision is made for the education of physically and mentally handicapped children, both by the State authorities and by church and voluntary organisations, often working in conjunction. In many cases, where residential schools are necessary for particular groups, educational facilities and teaching staff are provided by a State Education Department, while a voluntary organisation provides accommodation and accepts responsibility for the general welfare of the children. Among the facilities available are: hospital schools for sick and crippled children; 'spastic centres' for cerebral palsied children; special schools and special classes for deaf children; schools for blind children; and special schools and classes for mentally retarded children. Special schools and classes have involved the appointment of departmental specialists, the provision of special training courses and close liaison with school health services. In some States, clinics attached to hospitals, or functioning as an independent child welfare service, handle cases of personality maladjustment and work in co-operation with the psychological services of the Education Departments.

Educational guidance

Each Australian State has a comprehensive system of educational guidance administered by trained and experienced educational psychologists and backed by a system of individual pupil record cards. The functions of these services are to provide: advice on suitability of various secondary studies for particular children, diagnosis and guidance of atypical children, preliminary guidance, and, in some States, research. The weight given to each of these functions varies from State to State, but the aim is to provide thorough educational guidance for all children.

Throughout Australia branches of the Commonwealth Employment Service co-operate with State Education Departments by giving post-school vocational guidance, using the data obtained during the school careers of the children and made available by the Education Departments. In New South Wales a similar service is also provided by the Youth Welfare Section of the State Department of Labour and Industry.

Research

All State Education Departments have set up branches undertaking research directed towards departmental activities. The work of the research branches is concerned with such matters as curriculum content, new teaching methods, evaluation procedures, wastage rates, and educational statistics.

School broadcasting and television

Over the years an extensive school broadcasting system has been developed in Australia by the co-operative efforts of the Australian Broadcasting Commission and education authorities. The Australian Broadcasting Commission's Education Department is responsible for preparing and broadcasting programmes, but it draws freely on the advice and services of teachers and maintains permanent liaison with State Education Departments. In 1966 approximately 96 per cent of Australian schools were equipped to receive radio broadcasts. It is estimated that, in 1966, 7,446 primary schools used school programmes.

School broadcasts are presented as part of the regular Australian Broadcasting Commission programmes without separate stations or wave lengths. Special efforts are made to relate the broadcasts to school work by the extensive distribution of booklets, giving details of programmes in advance, and subject notes accompanied by picture sheets, work books, and teachers' notes. Broadcasting has proved to be a most effective way of reaching the outback children of Australia, and radio lessons have been designed to supplement correspondence lessons.

The year 1965 saw a further increase in the number of schools receiving television broadcasts and in the number of programmes produced. During 1964, after consultation with the six Education Departments, the Australian Broadcasting Commission increased its output of school television programmes, especially instructional programmes in mathematics and science for secondary schools. Direct teaching lessons designed for the senior forms were presented. At the same time most Education Departments began to subsidise the purchase of television sets, and by the end of 1966, 3,753 schools in Australia were equipped to use educational television programmes.

Scholarships and bursaries

All States have schemes of financial assistance to school pupils, mostly at the secondary level, through scholarships or bursaries. As tuition in government schools is free, this assistance is usually in the form of maintenance allowances, both for children living with their parents and for those living away from home. These may be paid in a lump sum or in instalments throughout the year. Awards are usually made on the results of a competitive examination, and sometimes a means test is applied. Other government and private authorities, such as the Repatriation Department and the Legacy War Orphans Fund, assist special categories of pupils with their school education. Many non-government schools also award scholarships, on a competitive basis, which enable students to attend the particular schools without payment of fees.

In 1964 the Commonwealth Government, with the co-operation of the State Departments of Education, introduced a programme of secondary scholarships to encourage successful candidates to complete the final two years of secondary schooling. Ten thousand of these scholarships are awarded each year. In addition, there are 2,500 scholarships for technical education each year.

School transport

All States have systems of subsidies whereby transport is made available free or at concession rates for children travelling to and from school. In some States allowances are paid if private transport has to be used.

School buildings

The great increase in the school population in the last decade led to an expansion in school building. To cope with this growth in population, it was necessary at first to make use of temporary and emergency structures, but the period of resorting to this expedient has now given way to one of consolidation and development in school building programmes. Quite large schools may be built in stages to match increases in local population in new and rapidly developing suburbs in metropolitan areas. Authorities are giving much attention to the use of new materials and especially to the planning of sites. An increasing number of schools are planned with playing fields and tennis courts. Gymnasiums which may also serve as assembly halls are included, and lighting, heating and ventilation to meet different climatic conditions are carefully planned.

During the period 1 July 1964 to 30 June 1968 a total of $39,623,200 will have been provided by the Commonwealth Government for the building and equipping of science laboratories in both government and non-government schools. Non-government schools in the Australian Capital Territory and the Northern Territory no longer receive this assistance. In these areas the Commonwealth Government now meets interest charges on loans raised for approved building projects and also repays the amounts of capital borrowed in equal annual instalments over periods of twenty years.

Textbooks, materials and other equipment

The State Education Departments supply government schools, free of charge, with essential equipment, including scientific apparatus, maps, blackboards, chalk, and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are also supplied in most States. Readers and writing equipment for individual pupils are usually supplied free in primary schools, and several Education Departments produce monthly school magazines which are supplied free or cheaply. In primary schools (except in one State where textbooks are made available free to children in both government and non-government primary schools) and in secondary schools, textbooks must, however, be purchased by students. In several States schools own stocks of textbooks which are hired to students, and in one State secondary textbooks are sold at reduced prices. In four States certain textbook costs are subsidised for pupils attending government and non-government schools. Equipment such as radios, television sets, film and filmstrip projectors, pianos, duplicators, and library books is ordinarily purchased for individual schools by the parent and citizen organisations associated with them, with the assistance of subsidies from the Departments.

The design of school furniture is undergoing considerable change following research on posture and the physical measurement of children. Dual desks are now being replaced in many schools by individual tables and chairs, provided in a range of sizes suitable to each class. In line with modern educational practice, the new type of furniture has been designed to allow more flexible arrangements of the classroom.

Visual aids

Visual aids are widely used in Australian education. Each of the State Education Departments has a visual education branch to handle the production and distribution of such materials. Film strips and posters are distributed free or at low cost. Films are held in central libraries and are requisitioned by schools as required for teaching purposes.

Pre-school education

Pre-school centres of various kinds are conducted by approved private individuals, by church bodies and by voluntary organisations such as the Kindergarten Unions. Over recent years the Commonwealth Government, State Governments and some municipal councils have provided an increasing amount of financial assistance and they themselves maintain centres.

The Australian Pre-School Association is a federal body composed of the Kindergarten Unions and several other organisations. Its aim is to promote the development of pre-school education throughout Australia. It is also responsible for the administration of six Lady Gowrie Child Centres which were established in capital cities by the Commonwealth Government as model pre-school centres. Pre-school centres are located in city and country areas. Programmes are adapted to suit the areas in which centres are situated. Types of pre-school centres are nursery kindergartens, crèches with full-day care for children in closely settled industrial areas, play groups and play centres, occasional care centres, and residential holiday homes. Pre-school centres can cater for only a small proportion of children in the three- to five- or six-year age group, but radio and television have brought a form of education within the reach of practically every pre-school child in Australia. 'Kindergarten of the Air', the first programme of its kind in the world, is a session of twenty-five minutes broadcast every week-day over the national radio network of the Australian Broadcasting Commission. Through it, young children in hospitals, in homes in city and country towns and in bush homesteads in the outback, perhaps many miles from any school, receive many of the advantages of pre-school training. 'Play-school' is a 30-minute television programme transmitted each week-day. It is based on the interests of children from three to five years and is now broadcast in all State capital cities and in many country regions by the Australian Broadcasting Commission.

Technical education

The following description of technical education refers to training in technical fields given by institutions other than secondary schools and universities. Students may proceed to this kind of training after completing three to five years at secondary school. Each State has developed a system of technical education based on institutions set up in all the State capital cities and in many country areas. These institutions are known variously as technical colleges, technical schools, institutes of technology, and schools of mines. The earliest began as local and even private ventures in the second half of the nineteenth century, but almost all of them have now come under the control of the State Governments.

The technical schools and colleges in Queensland, South Australia, Western Australia, and Tasmania are administered by branches of the State Education Departments. In Western Australia and South Australia the Institutes of Technology function as autonomous institutions. Certain recommended technical colleges and institutes are assisted by special Commonwealth Government grants introduced in 1965 following recommendations of a Committee set up to consider the future of tertiary education in Australia. New South Wales has a separate State Department of Technical Education. In Victoria there is a dual system with a number of the older colleges controlled by their own 'councils' in addition to government-controlled colleges administered by the Technical Education Branch of the Education Department. The council-controlled colleges receive government grants-in-aid.

Australian technical colleges offer training in all the major industrial skills and in a wide variety of commercial, artistic and domestic occupations. The three main types of courses are described on page 600.

Trade courses

These offer part-time training for apprentices. In developing a system of technical education, the Australian authorities were influenced by the British tradition which regards practical experience on the job as the fundamental training procedure, to be supplemented by theoretical and practical training at an appropriate school. In each of the Australian States there is an apprenticeship authority which supervises the administration of apprenticeships, and an education authority which provides technical education through its technical colleges.

Most students who wish to become tradesmen leave school on the completion of three or four years of secondary schooling at about sixteen years of age. An increasing proportion, however, is entering at higher educational levels and receiving credit for this. On entering apprenticeship in one of the trades, the young apprentice is required to enrol in an appropriate trade course in one of the network of technical colleges in capital cities and large country towns.

The time spent on training varies from three to five years in different trades and States. Between four and eight hours instruction a week are required. Most of this takes place in the employer's time, and it is unusual for more than two hours a week to be spent in attending classes outside working hours.

Certificate courses

These courses are designed to provide training in technical occupations and in some cases can be counted towards a diploma course. Certificate courses vary in length from State to State, but generally speaking they last from two to seven years. Attendance may be full-time for all or part of the course, or wholly part-time. Usually there are no occupational requirements for admission to a certificate course, and students who have completed a related trade course may be admitted together with other students to a certificate course. Educational requirements in most cases specify possession of an Intermediate level examination certificate, which may need to include passes at appropriate levels in certain specified subjects. In addition, in New South Wales the Department of Technical Education conducts the Certificate Entrance Examination, a pass in which qualifies a student for attendance at a technical college. Courses are offered in subjects such as accountancy, electrical fitting and mechanics, wool classing, and architectural drafting.

Diploma courses

Diploma courses are designed to provide professional training in fields such as architecture, art, building, commerce, management, public administration, manual arts, the various branches of engineering and metallurgy, and pure and applied science. They usually follow completion of a full secondary school course. The courses consist of complete progressive units of study in which the lecture room, laboratory and workshop are closely associated. They vary from three to five years full-time and from three to seven years part-time study. At least one full year of employment in an appropriate occupation is usually required. The aim of the courses is to develop highly trained technologists with the qualifications and experience required for membership of a professional institution.

While quite separate and distinct from a university course, a diploma course covers much the same ground as the early years of a university course. A diplomate who has matriculated is likely to be granted substantial exemptions in a related university course.

Other technical courses

Most colleges provide short post-diploma and refresher courses to keep students in touch with new developments in their fields, as well as courses of general interest, such as handicrafts and motor mechanics. Training in certain technical aspects of agriculture such as farm mechanics and wool classing is often given in the technical colleges. Some also offer general secondary courses to enable adults to prepare for matriculation and other public examinations.

Technical correspondence teaching

Each State has a well developed system of technical education by correspondence to extend the facilities of a metropolitan college to rural students. Entrance qualifications are identical with those for the regular classes. A major problem of correspondence work is the linking of theory with practice. This is overcome to a certain extent by holding practical sessions at appropriate training centres once or twice a year at the technical college where the correspondence school is based, or at a mobile workshop stationed for the time at a focal point within the district. In New South Wales these mobile workshops are rail cars equipped with machinery and fittings to make them self-contained training schools for engineering and other trades. Among practical courses offered by correspondence are trade drawing, fitting and machinery, welding, diesel engine operation, automotive engineering and workshop practice, and farm mechanics.

Technical colleges, teachers and students

The numbers of colleges, teachers and enrolments during the years 1961 to 1965 are given in the following table.

TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS STATES AND TERRITORIES, 1961 TO 1965

State or Territory	Colleges	Teachers			Students enrolled		
		Full-time	Part-time	Total	Males	Females	Persons
New South Wales(*a*)(*b*)(*c*)(*d*)—							
1961	51	1,302	2,051	3,353	r76,282	r37,161	r113,443
1962	52	1,348	2,390	3,738	r82,769	r38,884	r121,653
1963	52	1,474	r2,732	r4,206	r87,477	r40,219	r127,696
1964	53	1,535	3,099	4,634	r94,663	r41,022	r135,685
1965	54	1,570	3,140	4,710	98,840	41,377	140,217
Victoria(*e*)—							
1961	63	r2,552	r2,146	r4,698	47,053	13,424	60,477
1962	70	r2,773	r2,219	r4,992	48,939	12,487	61,426
1963	73	r3,080	r2,290	r5,370	50,325	13,456	63,781
1964	73	r3,378	r2,363	r5,741	52,031	13,399	65,430
1965(*f*)	79	3,724	2,586	6,310	n.a.	n.a.	79,287
Queensland(*d*)—							
1961	r15	r201	r825	r1,026	r24,996	r9,884	r34,880
1962	15	r209	r882	r1,091	r24,780	r11,395	r36,175
1963	15	r229	r977	r1,206	r29,044	r12,860	r41,904
1964	r15	r235	r1,067	r1,302	r31,082	r12,002	r43,084
1965(*g*)	14	279	620	899	29,715	6,740	36,455
South Australia—							
1961(*h*)	25	363	712	1,075	15,596	8,457	24,053
1962(*h*)	24	387	827	1,214	17,599	10,177	27,776
1963(*i*)	24	r453	r954	r1,407	18,661	11,291	(*i*)34,330
1964(*i*)	25	r462	r1,101	r1,563	19,956	11,503	(*i*)35,937
1965(*i*)	25	520	1,153	1,673	21,805	13,214	(*i*)39,856
Western Australia(*d*)(*j*)—							
1961	20	r325	r881	r1,206	r26,508	r14,585	r41,093
1962	25	352	1,136	1,488	r29,374	r15,531	r44,905
1963	32	r373	1,257	1,630	r30,251	r15,362	r45,613
1964	32	444	r1,398	r1,842	r34,399	r16,711	r51,110
1965	36	505	1,632	2,137	37,326	18,114	55,440
Tasmania—							
1961	12	97	383	480	4,871	1,427	6,298
1962	11	95	414	509	4,884	1,763	6,647
1963	10	90	449	539	5,564	2,023	7,587
1964	9	102	488	590	5,520	2,023	7,543
1965	12	146	442	588	5,501	2,110	7,611
Northern Territory—							
1961	2	4	53	57	r574	r419	r993
1962	2	4	54	58	r582	r424	r1,006
1963	2	1	66	67	r706	r552	r1,258
1964	2	1	72	73	r712	r579	r1,291
1965	2	1	100	101	947	942	1,889
Total—							
1961	r188	r4,844	r7,051	r11,895	r195,880	r85,357	r281,237
1962	199	r5,168	r7,922	r13,090	r208,927	r90,661	r299,588
1963	208	r5,700	r8,725	r14,425	r222,028	r95,763	r322,169
1964	r209	r6,157	r9,588	r15,745	r238,363	r97,239	r340,080
1965	222	6,745	9,673	16,418	n.a.	n.a.	360,755

(*a*) Students enrolled represent gross enrolments, no allowance having been made for students enrolled in more than one course. (*b*) Includes Australian Capital Territory. Gross enrolments at Canberra Technical College were as follows: 1961, 1,889; 1962, 2,431; 1963, 2,895; 1964, 3,551; 1965, 4,267. (*c*) Figures include teachers and students at technical colleges and at other centres, such as high school classrooms, in which technical classes are conducted. (*d*) Includes correspondence course teachers and students. (*e*) Teachers include those at both senior and junior technical colleges. Revised figures exclude technical studentship holders. Student instructors are now shown as part-time teachers instead of full-time. (*f*) Student enrolment figures for 1965 are not comparable with those shown for earlier years. The census of students is now conducted in May instead of August and hence includes students taking short courses offered in the first term only, and students who discontinue their courses after the first term. (*g*) The figures for 1965 reflect the major reorganisation of technical education introduced at the beginning of the year. In addition to the establishment of the Institute of Technology, entry standards were raised, and the minimum number of students required to commence classes was also raised. (*h*) Excludes correspondence teachers and students. (*i*) Total students includes students enrolled in correspondence courses. Teacher figures include correspondence course teachers. (*j*) Teachers represent number of teaching positions.

Training of technical instructors

Prior to the 1939–45 War technical colleges were staffed chiefly by trained teachers in the employment of the Education Departments or technicians drawn from industry. Although some of the latter were highly qualified, the great majority had not been trained as teachers.

To preserve links with industry and trade practice, schemes have been developed which continue the recruitment of specialist tradesmen as instructors but provide also for their training in educational method and teaching techniques. In Victoria the Technical Teachers' College provides training for students with appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales technical college lecturers and tradesmen-instructors receive an in-service course of teacher training in general educational theory and teaching method, while correspondence courses and visiting lecturers assist the newly appointed tradesman-instructor in country colleges. Variations of this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teachers certificates from teachers colleges.

Government expenditure on schools and technical education

The following tables show particulars of the total net expenditure (i.e. gross expenditure less receipts for services rendered) from certain funds on government schools, education departments and technical education. The data have been compiled on the same basis as far as differences in organisation and accounting methods between States and Territories will permit. The tables include only expenditure from the consolidated revenue funds and certain trust or special funds. They exclude loan fund expenditure; expenditure on debt charges, pay-roll tax and superannuation payments, in so far as it is possible to identify these items; and some items for which information cannot be obtained from the public accounts of all States.

Government schools' and education departments' expenditure

The figures relate throughout to years ended 30 June. Net expenditure per pupil relates the total net expenditure to the mean of the numbers of pupils enrolled at government schools at two consecutive school censuses. Net expenditure per head of population relates the total net expenditure to the mean population.

GOVERNMENT SCHOOLS AND EDUCATION DEPARTMENTS: NET EXPENDITURE STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
TOTAL NET EXPENDITURE ($'000)									
1961–62	101,868	68,344	30,218	27,011	20,204	10,854	856	1,826	261,181
1962–63	108,088	76,262	33,604	29,540	21,684	11,678	932	2,224	284,012
1963–64	119,778	84,756	37,246	33,363	23,894	12,966	1,087	2,498	315,588
1964–65	140,803	91,593	40,011	36,380	26,810	14,413	1,352	3,264	354,626
1965–66	148,835	101,617	43,008	40,408	30,751	15,476	1,634	3,502	385,231
TOTAL NET EXPENDITURE PER PUPIL ($)									
1961–62	167.88	152.49	122.07	152.99	159.03	160.84	180.59	176.05	154.67
1962–63	174.53	164.63	133.45	161.40	164.75	169.27	176.88	190.69	163.70
1963–64	190.18	177.12	145.81	175.24	176.11	184.86	182.14	192.05	177.40
1964–65	218.83	184.79	153.87	183.16	192.51	202.63	202.33	226.13	193.86
1965–66	224.50	197.72	161.54	195.65	213.67	214.83	214.30	220.00	203.91
TOTAL NET EXPENDITURE PER HEAD OF POPULATION ($)									
1961–62	25.80	23.10	19.79	27.56	27.09	30.43	32.22	29.25	24.63
1962–63	26.92	25.24	21.66	29.57	28.37	32.25	33.76	32.13	26.27
1963–64	29.31	27.42	23.67	32.71	30.55	35.41	36.16	32.35	28.62
1964–65	33.87	28.90	25.07	34.87	33.62	39.16	41.68	38.60	31.53
1965–66	35.41	31.84	26.10	37.49	37.28	41.90	45.11	37.82	33.66

(a) Figures include expenditure on adult education which amounted to $1,398 in 1961–62, $2,148 in 1962–63, $916 in 1963–64, $1,092 in 1964–65, and $887 in 1965–66.

The following table shows, for the six States, the net expenditure on government schools and education departments classified into the following headings: primary education, secondary education, administration, transportation of school children and students, and training of teachers. Expenditure on technical and agricultural education is excluded from the tables.

It has been necessary to estimate some items of expenditure, largely because the meanings of 'primary' and 'secondary' differ between States and because elementary and higher educations are sometimes given in the same school by the same teachers. Expenditure on government schools in the Northern Territory and Australian Capital Territory is not included in the following table because the detail is not available.

GOVERNMENT SCHOOLS AND EDUCATION DEPARTMENTS: CLASSIFICATION OF EXPENDITURE, STATES, 1961-62 TO 1965-66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total(*a*)
PRIMARY EDUCATION							
1961–62 . .	54,050	35,538	19,434	13,242	10,572	4,046	136,882
1962–63 . .	55,880	38,976	20,816	13,992	11,154	4,330	145,148
1963–64 . .	60,824	42,590	21,066	15,586	12,258	4,990	157,314
1964–65 . .	70,199	45,492	20,995	16,640	13,800	5,521	172,647
1965–66 . .	70,612	49,930	22,050	18,136	15,714	5,868	182,310
SECONDARY EDUCATION							
1961–62 . .	33,102	18,000	6,906	9,710	5,166	3,670	76,554
1962–63 . .	35,386	20,460	8,094	10,964	5,918	3,958	84,780
1963–64 . .	40,706	23,852	10,458	12,699	6,686	5,034	99,435
1964–65 . .	49,992	26,027	12,778	14,193	7,522	5,678	116,190
1965–66 . .	54,337	29,463	13,809	15,915	9,247	6,080	128,851
ADMINISTRATION							
1961–62 . .	4,148	1,672	1,276	530	716	1,118	9,460
1962–63 . .	4,138	1,780	1,344	600	750	1,374	9,986
1963–64 . .	4,522	1,906	1,484	698	858	810	10,278
1964–65 . .	5,503	2,232	1,571	813	1,021	833	11,973
1965–66 . .	6,237	2,357	1,794	848	909	904	13,049
TRANSPORTATION OF SCHOOL CHILDREN AND STUDENTS							
1961–62 . .	4,564	5,048	1,556	1,134	2,108	1,230	15,640
1962–63 . .	5,300	5,352	1,806	1,172	2,170	1,284	17,084
1963–64 . .	5,582	5,600	2,076	1,270	2.362	1,336	18,226
1964–65 . .	5,867	6,009	2,474	1,312	2,611	1,418	19,691
1965–66 . .	7,342	6,414	2,770	1,424	2,673	1,500	22,123
TRAINING OF TEACHERS							
1961–62 . .	6,004	8,086	1,046	2,395	1,642	790	19,963
1962–63 . .	7,384	9,694	1,544	2,812	1,692	732	23,858
1963–64 . .	8,144	10,808	2,162	3,110	1,730	796	26,752
1964–65 . .	9,242	11,833	2,193	3,422	1,856	963	29,509
1965–66 . .	10,307	13,453	2,585	4,085	2,208	1,124	33,762

(*a*) Excludes Northern Territory and Australian Capital Territory.

Technical education expenditure

The following table shows the net expenditure on technical education from the State consolidated revenue funds, together with expenditure in the Australian Capital Territory.

TECHNICAL EDUCATION: NET EXPENDITURE, STATES AND AUSTRALIAN CAPITAL TERRITORY, 1961-62 TO 1965-66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
1961–62 . .	9,264	13,280	1,966	840	2,176	492	146	28,164
1962–63 . .	9,530	15,712	2,144	960	2,336	688	162	31,532
1963–64 . .	10,684	18,048	2,044	1,330	2,772	732	211	35,821
1964–65 . .	12,637	19,963	1,892	1,386	3,426	813	305	40,422
1965–66 . .	13,137	22,864	2,677	1,216	4,240	946	445	45,525

Non-government schools' finance

Most Roman Catholic parochial schools charge fees, but payment is not insisted on in the case of families who cannot afford it. At the majority of non-government secondary schools privately endowed scholarships are available in varying numbers, and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school. With these exceptions, pupils of non-government schools must pay fees.

Certain State scholarships and bursaries are tenable at approved non-government secondary schools. Since the establishment of educational systems by the State Governments, official policy has been largely against the provision of direct financial assistance to non-government schools. Most States, however, have come to assist non-government schools in approved building projects. This assistance takes the form of payment of interest charges on loans raised for the extension of teaching space. The eight undenominational grammar schools in Queensland receive a State subsidy. In 1956 the Commonwealth Government undertook to contribute to the interest payments on loans raised in order to build non-government secondary school accommodation in the Australian Capital Territory and the Northern Territory. As from 1964–65 the Commonwealth Government has provided assistance to non-government schools for the building and equipping of science laboratories (*see* page 598). In the Australian Capital Territory and the Northern Territory these grants were superseded, in November 1965, by a scheme, extended to cover kindergarten and primary schools, under which the Commonwealth Government contributes to interest payments on loans raised to finance new buildings, extensions and additions to buildings, and expenditure of a capital nature on teaching equipment, and repays the loans in equal annual instalments over a period of twenty years.

Universities

Students qualify for entrance to Australian universities by passing a matriculation examination in one of the States after five or six years of secondary education. Each university has its own regulations for matriculation, specifying the number and combination of subjects to be passed for admission. Students entering the universities have the choice of undergraduate study in various faculties. All universities provide also postgraduate courses of study. The Australian universities, with their faculties or schools, are listed below in the order of their foundation.

University of Sydney, 1850, Sydney, New South Wales: Agriculture, Architecture, Arts, Dentistry, Economics, Engineering, Law, Medicine, Science, Veterinary Science.

University of Melbourne, 1853, Melbourne, Victoria: Agriculture, Applied Science, Architecture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Music, Science, Veterinary Science.

University of Adelaide, 1874, Adelaide, South Australia: Agricultural Science, Architecture and Town Planning, Arts, Dentistry, Economics, Engineering, Law, Medicine, Music, Science, Technology and Applied Science.

University of Tasmania, 1890, Hobart, Tasmania: Agricultural Science, Arts, Commerce, Education, Engineering, Law, Medicine, Science.

University of Queensland, 1909, Brisbane, Queensland: Agriculture, Architecture, Arts, Commerce and Economics, Dentistry, Education, Engineering, Law, Medicine, Science, Veterinary Science.

University of Western Australia, 1912, Perth, Western Australia: Agriculture, Architecture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Science.

Australian National University, 1946, Canberra, Australian Capital Territory: Institute of Advanced Studies—John Curtin School of Medical Research, Research School of Physical Sciences, Research School of Social Sciences, Research School of Pacific Studies; School of General Studies (formerly Canberra University College, established in 1930)—Arts, Economics, Law, Oriental Studies, Science.

University of New England, 1954 (formerly New England University College, established in 1938), Armidale, New South Wales: Agricultural Economics, Arts, Economics, Rural Science, Science.

University of New South Wales, 1958 (formerly the New South Wales University of Technology, established in 1948), Sydney, New South Wales: Applied Science, Architecture, Arts, Commerce, Engineering, Medicine, Science.

Monash University, 1958, Melbourne, Victoria: Arts, Economics and Politics, Education, Engineering, Law, Medicine, Science.

University of Newcastle, 1965 (formerly Newcastle University College, established in 1951), Newcastle, New South Wales: Applied Science, Architecture, Arts, Commerce, Engineering, Science.

Flinders University of South Australia, 1966, Bedford Park, South Australia: Language and Literature, Social Sciences, Physical Sciences, Biological Sciences.

La Trobe University, 1967, Bundoora, Victoria: Biological Sciences, Humanities, Physical Sciences, Social Sciences.

Macquarie University, 1967, North Ryde, New South Wales: Behavioural Sciences, Biological Sciences, Chemistry, Earth Sciences, Economic and Financial Studies, Education, English Studies, Historical, Philosophical and Political Studies, Mathematics and Physics, Modern Languages.

Each of the universities was established by a parliamentary Act as an autonomous institution, with its own Governing Council or Senate. Nevertheless, the Australian universities receive substantial government support from both State and Commonwealth sources, only part of their income being derived from students' fees, private donations and bequests.

There are also two university colleges. Townsville University College, founded in 1961, is a part of the University of Queensland. It offers some courses in the faculties of Agriculture, Arts, Commerce and Economics, Dentistry, Education, Engineering, Law, Medicine, Science, and Veterinary Science. Wollongong University College was opened in 1962 and is affiliated with the University of New South Wales. It offers some courses in the faculties of Arts, Commerce, Engineering, and Science.

Organisation of courses

Bachelor degree courses are from three to six years in length, depending on the faculty, and for the majority full-time attendance is required. Certain courses, however, may also be undertaken by part-time or evening students. The university academic year begins in March and finishes in early December. At most universities two short vacation periods divide the year into three terms, but there are four terms in some universities.

Several universities make provision for external tuition, whereby students living away from university towns may take a restricted number of courses by correspondence. The University of Queensland has developed a system of correspondence tuition which now caters not only for students within the State but also for those in the Northern Territory, Papua and New Guinea, adjacent Pacific islands, and Asian countries. External students living in Queensland receive tutorial assistance at university centres in the principal country towns.

The University of New England's Department of External Studies offers a wide range of subjects for external study, leading to the degrees of Bachelor of Arts, Bachelor of Letters, Bachelor of Education, the Diploma in Education, and the Diploma in Educational Administration. External students must attend short annual residential schools of instruction in their subjects, usually held at the university.

Post-graduate courses leading either to a Master's degree or to a Doctorate are available at all universities. Facilities cover the humanities, social sciences and pure and applied sciences. Additional courses are constantly being introduced by the universities at both the undergraduate and the post-graduate level to cover new fields of knowledge and specialisation. Among announcements of new courses made in 1966 were: at the University of Sydney, Bachelor of Social Studies; at the University of New South Wales, Diploma in Education and Master of Education; at Monash University a Faculty of Education was established; and at the University of Western Australia a Faculty of Architecture was established.

Research

A wide range of research work and training in research techniques is carried out by the universities as part of their normal functions. Post-graduate students and members of university staff are engaged in research, both as part of their work for post-graduate degrees and also as part of group and departmental research programmes. Support for research in universities is derived from public and private sources, including funds and foundations established to encourage research in a particular field.

University expansion and development

Since the 1939–45 War the Australian universities have had to face greatly increased demands on their facilities, firstly from large numbers of ex-service personnel in the immediate post-war years and later from greatly increased numbers of students leaving secondary schools each year. By 1966 the total enrolments in Australian universities had reached a figure of 91,272, compared with an early post-war peak of 32,453 in 1948.

To assist the universities to cope with these demands, increasing co-operation between the Commonwealth Government and the State Governments in university finance became necessary. The Commonwealth Government set up a Committee on Australian Universities, whose 1957 report ('The Murray Report') led to more finance becoming available to universities and to the setting up of a permanent body, the Australian Universities Commission, to advise the Commonwealth Government on university development. In the years since the Murray Report the following major developments have taken place in the Australian university structure: the University of New South Wales was created from the earlier University of Technology in 1958; in the same year Monash University was established in Victoria; in 1960 the Australian National University was reconstituted, combining both undergraduate and post-graduate facilities, and now consists of the Institute of Advanced Studies and the School of General Studies created from the Canberra University College; the University of Queensland set up the University College of Townsville in 1961; the University of New South Wales established the Wollongong University College in 1962; in 1965 the University of Newcastle was created from the Newcastle University College; in 1966 the University of Adelaide at Bedford Park became The Flinders University of South Australia; and in 1967 Macquarie University and La Trobe University were established in New South Wales and Victoria respectively.

The Queensland Government is proceeding with plans for the construction of a third university institution at Mount Gravatt. It is expected that the campus will be established within the next four years as a satellite of the University of Queensland.

Despite their expansion, the Australian universities are still faced with a problem in providing tuition for all students who reach matriculation standard and wish to take up university courses. As a result, several universities have found it necessary to impose quotas on enrolments in their courses.

University teaching and research staff

The following tables show particulars of the teaching and research staff of the universities during 1966 and earlier years.

UNIVERSITIES: TEACHING AND RESEARCH STAFF(*a*), 1966

University	Full-time teaching and research staff					Part-time teaching and research staff(*c*)	Full-time research only staff	Part-time research only staff(*d*)
	Professors	Associate professors and readers	Senior lecturers and lecturers	Assistant lecturers, demonstrators, etc.(*b*)	Total			
Australian National	32	23	142	49	246	154	686	..
Sydney	86	81	496	225	888	1,374	334	11
New South Wales	77	71	481	183	812	831	140	..
New England	27	27	142	99	295	26	34	..
Newcastle	19	5	105	11	140	110	10	2
Macquarie	12	..	8	..	20	..	1	..
Melbourne	82	95	545	155	877	1,006	220	35
Monash	55	13	292	133	493	441	43	3
La Trobe	11	..	..	..	11	..	2	..
Queensland	65	68	447	225	805	635	166	5
Adelaide	64	51	313	69	497	422	222	9
Flinders	15	1	32	10	58	56	14	1
Western Australia	44	38	206	67	355	427	145	5
Tasmania	26	14	88	35	163	213	40	11
Total	**615**	**487**	**3,297**	**1,261**	**5,660**	**5,695**	**2,057**	**82**

(*a*) Filled positions. Teaching and research staff includes all staff with teaching functions, but excludes research only staff which is shown separately. (*b*) Includes tutors and teaching fellows. (*c*) Teaching hours in units of 100 hours per annum. (*d*) In equivalent full-time units of 35 hours per week.

UNIVERSITIES: TEACHING AND RESEARCH STAFF(*a*), AUSTRALIA, 1962 TO 1966

Year	Full-time teaching and research staff					Part-time teaching and research staff(*c*)	Full-time research only staff	Part-time research only staff(*d*)
	Professors	Associate professors and readers	Senior lecturers and lecturers	Assistant lecturers, demonstrators, etc.(*b*)	Total			
1962	363	330	2,438	770	3,901	3,472	1,369	27
1963	404	374	2,663	848	4,289	3,847	1,481	35
1964	463	409	2,847	1,004	4,723	4,358	1,675	45
1965	521	449	3,050	1,085	5,105	5,167	1,752	56
1966	615	487	3,297	1,261	5,660	5,695	2,057	82

(*a*) Filled positions. Teaching and research staff includes all staff with teaching functions, but excludes Research only staff which is shown separately. (*b*) Includes tutors and teaching fellows. (*c*) Teaching hours in units of 100 hours per annum. (*d*) In equivalent full-time units of 35 hours per week.

University students enrolled

The numbers of students enrolled for courses at the universities for 1966 and earlier years are shown in the following tables.

UNIVERSITIES: STUDENTS ENROLLED, 1966

University	Degree courses	Diploma courses		Certificate courses	Miscellaneous subjects (*a*)	Adjusted total(*b*)
		Post-graduate	Sub-graduate			
Australian National . .	3,168	. .	. .	. .	116	3,170
Sydney	15,467	859	115	. .	366	16,660
New South Wales . .	12,059	320	159	15	784	13,285
New England . . .	3,893	355	. .	1	48	4,269
Newcastle	1,893	72	1	. .	57	2,013
Macquarie	8	. .	. .	. .	. .	8
Melbourne	12,775	100	646	. .	787	13,903
Monash	5,769	213	. .	. .	10	5,934
Queensland	13,612	125	554	142	388	14,821
Adelaide	7,865	115	1,100	23	311	8,947
Flinders	407	9	. .	. .	1	417
Western Australia . .	5,246	161	. .	. .	110	5,499
Tasmania	1,851	124	50	86	266	2,346
Total	84,013	2,453	2,625	267	3,244	91,272

(*a*) Includes *ad hoc* courses. (*b*) Adjustment made for students enrolled for more than one course.

Of the students enrolled in 1966, 66,303 were males and 24,969 females. Included in those enrolled for degrees were 7,560 enrolled for higher degree courses: Australian National University, 613; Sydney, 1,871; University of New South Wales, 1,087; New England, 197; Newcastle, 94; Macquarie, 8; Melbourne, 1,140; Monash, 372; Queensland, 789; Adelaide, 649; Flinders, 26; Western Australia, 573; and Tasmania, 141.

UNIVERSITIES: STUDENTS ENROLLED, AUSTRALIA, 1962 TO 1966

Year	Degree courses		Diploma courses		Certificate courses	Miscellaneous subjects (*a*)	Adjusted total(*b*)
	Higher degrees	Bachelor degrees	Post-graduate	Sub-graduate			
1962	3,814	50,757	1,622	r3,210	r1,795	r2,930	63,317
1963	4,551	56,077	1,764	r3,251	r1,437	r2,589	69,074
1964	5,383	62,936	1,984	r3,377	r650	r2,854	76,188
1965	6,169	69,540	2,146	r3,277	r346	r3,117	83,320
1966	7,560	76,453	2,453	2,625	267	3,244	91,272

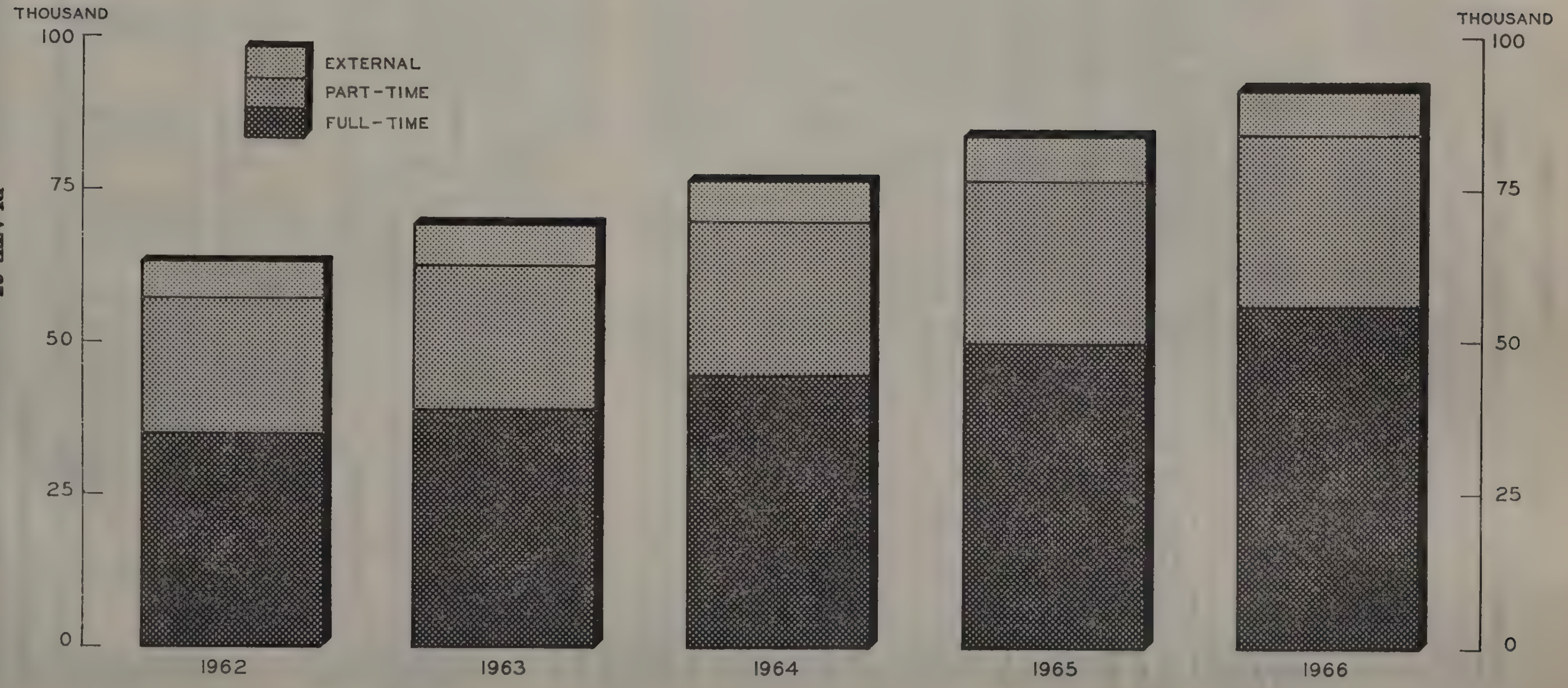
(*a*) Includes *ad hoc* courses. (*b*) Adjustment made for students enrolled for more than one course.

University new students enrolled

The numbers of new students enrolled for courses at the universities during 1966 and earlier years are shown in the following tables.

UNIVERSITIES: STUDENTS ENROLLED, AUSTRALIA

1962 TO 1966



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UNIVERSITIES: NEW STUDENTS ENROLLED, 1966

University	Degree courses	Diploma courses		Certificate courses	Miscellaneous subjects (a)	Adjusted total(b)
		Post-graduate	Sub-graduate			
Australian National	1,117	..	..	..	87	1,169
Sydney	3,391	220	16	..	171	3,798
New South Wales	4,005	136	31	15	560	4,740
New England	1,233	128	..	1	22	1,381
Newcastle	633	7	..	..	23	663
Macquarie	8	..	..	..	..	8
Melbourne	2,645	19	171	..	255	2,990
Monash	2,393	63	..	..	2	2,429
Queensland	3,434	10	133	33	113	3,723
Adelaide	1,930	2	132	1	39	2,098
Flinders	407	9	..	..	1	417
Western Australia	1,378	9	..	..	29	1,416
Tasmania	573	4	7	13	93	688
Total	**23,147**	**607**	**490**	**63**	**1,395**	**25,520**

(a) Includes *ad hoc* courses. (b) Adjustment made for students enrolled for more than one course.

Of the new students enrolled in 1966, 17,312 were males and 8,208 females. Included in those enrolled for degrees were 962 enrolled for higher degree courses: Australian National University, 189; Sydney, 140; University of New South Wales, 208; New England, 25; Newcastle, 11; Macquarie, 8; Melbourne, 49; Monash, 116; Queensland, 68; Adelaide, 40; Flinders, 26; Western Australia, 39; and Tasmania, 43.

UNIVERSITIES: NEW STUDENTS ENROLLED, AUSTRALIA, 1962 TO 1966

Year	Degree courses		Diploma courses		Certificate courses	Miscellaneous subjects (a)	Adjusted total(b)
	Higher degrees	Bachelor degrees	Post-graduate	Sub-graduate			
1962	475	14,487	279	r849	r470	r1,211	17,626
1963	538	15,717	387	r855	r247	r1,038	18,746
1964	603	18,339	462	r885	r178	r1,184	21,528
1965	697	20,062	458	r922	r96	r1,383	23,436
1966	962	22,185	607	490	63	1,395	25,520

(a) Includes *ad hoc* courses. (b) Adjustment made for students enrolled for more than one course.

Full-time, part-time and external university students

The following tables classify students at universities in 1966 and earlier years according to whether they were studying full-time, part-time or externally.

UNIVERSITIES: FULL-TIME, PART-TIME AND EXTERNAL STUDENTS, 1966

University	Full-time	Part-time	External	Total
Australian National	1,859	1,311	..	3,170
Sydney	12,905	3,755	..	16.660
New South Wales	6,976	6,077	232	13,285
New England	1,380	173	2,716	4,269
Newcastle	967	1,046	..	2,013
Macquarie	5	3	..	8
Melbourne	9,385	3,975	543	13,903
Monash	4,851	1,083	..	5,934
Queensland	6,814	5,293	2,714	14.821
Adelaide	5,659	2,900	388	8,947
Flinders	386	31	..	417
Western Australia	3,362	1,814	323	5,499
Tasmania	1,488	622	236	2,346
Total	**56,037**	**28,083**	**7,152**	**91.272**

UNIVERSITIES: FULL-TIME, PART-TIME AND EXTERNAL STUDENTS, AUSTRALIA, 1962 TO 1966

Year	Full-time	Part-time	External	Total
1962 . . .	r34,820	r22,333	6,164	63,317
1963 . . .	r39,029	r23,654	6,391	69,074
1964 . . .	r44,426	r25,217	6,545	76,188
1965 . . .	49,916	26,492	6,912	83,320
1966 . . .	56,037	28,083	7,152	91,272

Assistance to university students

The Commonwealth Government, through the Commonwealth Scholarships Board, grants undergraduate and post-graduate scholarships to university students. (Details of the Commonwealth Scholarship Scheme are given on page 623.) Commonwealth, State and local governments also award cadetships and other assistance to their employees. Foreign students are assisted by the Commonwealth Government under arrangements such as the Colombo Plan. The Universities themselves grant exhibitions and scholarships as well as special assistance to teachers, etc.

The following tables give details of students assisted at universities in 1966 and earlier years.

UNIVERSITIES: ASSISTED STUDENTS, 1966

University	Source of assistance					Type of course	
	Commonwealth Government	State Governments	Universities	Other	Adjusted total (*a*)	Higher degrees	Other
Australian National	782	1	1,075	56	1,720	499	1,221
Sydney . .	6,016	3,034	3,773	117	9,459	563	8,896
New South Wales .	2,368	985	1,821	871	5,085	546	4,539
New England .	431	621	1,688	60	2,787	162	2,625
Newcastle . .	323	397	650	142	1,096	60	1,036
Macquarie . .	5	. .	. .	. .	5	5	. .
Melbourne . .	5,093	2,586	3,647	166	9,191	620	8,571
Monash . .	1,638	1,801	327	88	3,846	330	3,516
Queensland . .	3,595	832	549	304	5,280	460	4,820
Adelaide . .	2,201	2,356	1,529	140	5,745	449	5,296
Flinders . .	129	181	19	6	317	24	293
Western Australia .	1,498	814	107	147	2,490	164	2,326
Tasmania . .	532	560	113	64	1,154	56	1,098
Total . .	**24,611**	**14,168**	**15,298**	**2,161**	**48,175**	**3,938**	**44,237**

(*a*) Adjustment made for students assisted from more than one source.

UNIVERSITIES: ASSISTED STUDENTS, AUSTRALIA, 1962 TO 1966

Form of assistance	1962	1963	1964	1965	1966
Government assistance . .	23,020	26,670	31,035	34,221	38,779
University assistance . . .	10,710	12,063	13,765	14,875	15,298
Other assistance. . . .	1,553	1,620	1,771	1,904	2,161
Adjusted total(*a*) . .	**31,041**	**33,678**	**39,416**	**43,406**	**48,175**

(*a*) Adjustment made for students assisted from more than one source.

Resident university students

In 1966, 7,720 full-time and 225 part-time students were in residence at affiliated colleges, halls of residence and university hostels. The 7,945 students in residence were distributed as follows: Australian National University, 815; Sydney, 984; New South Wales, 428; New England, 1,152; Melbourne, 1,593; Monash, 331; Queensland, 1,378; Adelaide, 382; Flinders, 24; Western Australia, 570; and Tasmania, 288. There were 5,831 male students and 2,114 female students in residence.

University degrees conferred, etc.

The following table shows the numbers of degrees conferred and diplomas and certificates granted for males and females separately at each university during the year ended 31 July 1966.

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, YEAR ENDED 31 JULY 1966

Course	Australian National		Sydney		New South Wales		New England		Newcastle		Melbourne	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—												
Arts	67	69	363	501	35	55	160	79	33	33	265	286
Divinity	..	..	4	..	..	..	..	..	..	..	..	..
Psychology	..	..	..	..	3	1	..	..	..	..	..	..
Social studies	12	1	..	..	..	..	..	..	..	..	..	..
Education	..	..	25	9	..	..	..	..	..	..	67	7
Music	..	..	1	1	..	..	..	..	..	..	7	20
Law	12	1	126	14	..	..	..	..	..	..	159	24
Commerce/Economics	40	1	149	14	137	4	..	..	15	1	223	35
Medicine/Surgery	11	2	279	55	2	..	..	..	..	..	148	25
Optometry	..	..	..	..	6	..	..	..	..	..	..	..
Pharmacy	..	..	91	77	..	..	..	..	..	..	..	..
Physiotherapy	..	..	..	..	..	..	..	..	..	..	..	..
Dentistry	..	..	27	2	..	..	..	..	..	..	32	..
Science	62	10	306	141	302	42	88	23	31	5	331	76
Applied science	..	..	..	..	30	..	..	..	3	..	23	4
Engineering	..	..	206	..	325	1	..	..	17	..	172	2
Surveying	..	..	..	..	17	..	..	..	..	..	4	..
Architecture and town planning	..	..	34	4	70	2	..	..	..	..	75	10
Building	..	..	9	..	11	..	..	..	..	..	1	..
Agriculture	..	..	46	11	..	..	20	..	..	..	36	2
Agricultural economics	..	..	..	..	..	..	20	..	..	..	..	..
Forestry	29	..	..	..	..	..	..	..	..	..	7	..
Veterinary science	..	..	51	2	..	..	..	..	..	..	1	..
Total degrees	*233*	*84*	*1,717*	*831*	*938*	*105*	*288*	*102*	*99*	*39*	*1,551*	*491*
Post-graduate diplomas—												
Education	..	..	163	267	..	..	53	64	23	23	61	43
Engineering	..	..	24	3	49	3	..	..	..	..	11	..
Medicine	..	..	11	3	..	..	..	..	..	..	21	1
Agriculture	..	..	1	..	..	..	..	..	..	..	..	..
Other	..	..	(*a*) 8	..	*b* 15	*b* 40	..	..	..	..	..	(*c*) 1
Total post-graduate diplomas	..	..	*207*	*273*	*64*	*43*	*53*	*64*	*23*	*23*	*93*	*45*
Sub-graduate diplomas	..	..	2	32	6	2	..	..	..	..	17	60
Certificates	..	..	..	..	44	2	..	..	..	..	..	..

(*a*) Anthropology ,3, Jurisprudence ,5. (*b*) Librarianship. (*c*) Criminology.

Table continued on next page.

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, YEAR ENDED 31 JULY 1966—*continued*

Course	Monash		Queensland		Adelaide		Western Australia		Tasmania		All Universities	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—												
Arts	81	104	125	132	150	127	118	99	67	57	1,464	1,542
Divinity	..	..	1	..	..	..	..	..	..	..	5	..
Psychology	..	..	3	..	..	..	7	4	..	..	13	5
Social studies	..	..	3	11	..	..	..	..	..	..	15	12
Education	..	..	59	13	..	..	40	6	..	..	191	35
Music	..	..	..	..	5	3	2	..	..	..	15	24
Law	..	..	20	3	32	10	24	2	10	3	383	57
Commerce/Economics	55	7	106	9	49	2	57	3	19	3	850	79
Medicine/Surgery	5	..	115	12	78	16	35	4	..	..	673	114
Optometry	..	..	..	..	..	..	..	..	..	..	6	..
Pharmacy	..	..	29	33	..	..	..	..	..	..	120	110
Physiotherapy	..	..	..	10	..	..	..	..	..	..	..	10
Dentistry	..	..	18	..	15	1	11	..	..	..	103	3
Science	40	5	178	65	273	54	132	24	72	12	1,815	457
Applied science	..	..	11	..	11	..	..	..	..	..	78	4
Engineering	19	..	117	2	123	..	39	..	13	2	1,031	7
Surveying	..	..	4	..	..	..	..	..	..	..	25	..
Architecture and town planning	..	..	14	..	15	1	..	..	..	..	208	17
Building	..	..	..	..	..	..	..	..	..	..	21	..
Agriculture	..	..	30	1	34	..	24	2	1	..	191	16
Agricultural economics	..	..	..	..	..	..	..	..	..	..	20	..
Forestry	..	..	1	..	..	..	4	..	..	..	41	..
Veterinary science	..	..	55	2	..	..	..	..	..	..	107	4
Total degrees	*200*	*116*	*889*	*293*	*785*	*214*	*493*	*144*	*182*	*77*	*7,375*	*2,496*
Post-graduate diplomas—												
Education	63	42	30	31	85	41	55	24	17	15	550	550
Engineering	..	..	1	..	1	..	1	..	..	..	87	6
Medicine	..	..	2	1	..	..	..	1	..	..	34	6
Agriculture	..	..	6	..	..	..	..	..	..	..	7	..
Other	..	..	..	..	..	..	..	..	..	..	23	41
Total post-graduate diplomas	*63*	*42*	*39*	*32*	*86*	*41*	*56*	*25*	*17*	*15*	*701*	*603*
Sub-graduate diplomas	..	..	29	59	143	147	..	..	2	..	199	300
Certificates	..	..	219	47	..	..	..	..	6	13	269	62

Table continued from previous page.

The next table shows total degrees conferred at all Australian universities during each of the years 1962 to 1966.

UNIVERSITIES: DEGREES CONFERRED, AUSTRALIA, 1962 TO 1966

Degree	1962			1963			1964			1965			1966		
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
Arts	890	733	1,623	936	946	1,882	1,102	1,107	2,209	r1,231	r1,249	r2,480	1,464	1,542	3,006
Divinity	3	..	3	1	..	1	3	..	3	2	..	2	5	..	5
Psychology	8	1	9	12	1	13	4	1	5	13	4	17	13	5	18
Social studies	..	5	5	6	8	14	4	9	13	14	6	20	15	12	27
Education	97	19	116	103	20	123	114	29	143	113	36	149	191	35	226
Music	9	17	26	8	25	33	13	19	32	12	26	38	15	24	39
Law	310	30	340	260	39	299	297	43	340	367	41	408	383	57	440
Commerce/ Economics	552	49	601	545	59	604	692	59	751	r702	56	r758	850	79	929
Medicine/Surgery	466	84	550	538	74	612	572	83	655	605	99	704	673	114	787
Optometry	..	..	..	..	..	..	..	..	..	6	..	6	6	..	6
Pharmacy	..	..	..	53	39	92	76	52	128	119	71	190	120	110	230
Physiotherapy	..	1	1	1	3	4	..	1	1	..	1	1	..	10	10
Dentistry	139	16	155	141	3	144	143	17	160	139	6	145	103	3	106
Science	r1,034	276	r1,310	r1,217	320	r1,537	1,346	357	1,703	r1,563	r415	r1,978	1,815	457	2,272
Applied science	12	..	12	r37	..	r37	36	..	36	r53	3	r56	78	4	82
Engineering	r784	..	r784	r828	1	r829	912	..	912	r969	3	r972	1,031	7	1,038
Surveying	11	..	11	15	..	15	14	..	14	25	..	25	25	..	25
Architecture and town planning	79	5	84	133	8	141	128	13	141	r156	15	r171	208	17	225
Building	2	..	2	6	..	6	6	..	6	15	..	15	21	..	21
Agriculture and agricultural economics	168	12	180	191	17	208	189	16	205	219	31	250	211	16	227
Forestry	16	..	16	27	..	27	30	..	30	37	..	37	41	..	41
Veterinary science	65	4	69	79	4	83	90	7	97	116	4	120	107	4	111
Total—															
Higher doctorates	35	1	36	32	1	33	32	2	34	36	1	37	44	3	47
Ph.D.'s	124	14	138	161	13	174	188	15	203	r251	25	r276	312	24	336
Master's degrees	301	31	332	319	47	366	342	45	387	r394	81	r475	489	76	565
Bachelor's degrees	4,185	1,206	5,391	4,625	1,506	6,131	5,209	1,751	6,960	r5,795	r1,959	r7,754	6,530	2,393	8,923
Grand total	4,645	1,252	5,897	5,137	1,567	6,704	5,771	1,813	7,584	r6,476	r2,066	r8,542	7,375	2,496	9,871

University finance

Australian universities are incorporated by statute. Since their establishment they have come to depend greatly on government grants for their income. In recent years large amounts have been required for new buildings, as well as for current expenditure to provide staff and equipment to cope with increased student enrolments. In 1965 income from other than State and Commonwealth grants, including student fees, amounted to just over one-fifth of the total income. Income from non-government sources includes grants, mainly for research purposes, from businesses, international foundations and private individuals. Some income is also received from endowments.

Financial assistance to universities from the Commonwealth Government

Prior to 1939 Commonwealth assistance was almost entirely concerned with research projects carried out by or in collaboration with the universities. During and since the 1939–45 War the Commonwealth extended assistance to university students, at first to increase the number of highly trained people required for the war effort, then with the object of rehabilitating ex-servicemen, and finally as a social service benefit to the community. For the purpose of reconstruction training the Commonwealth Government made available to the universities approximately $2 million for buildings and $1 million for equipment.

Following a report submitted by a committee of inquiry appointed to report on university finances and requirements, the Commonwealth, since 1951, has made matched grants to the States for recurrent expenditure on university purposes and unmatched grants for university halls of residence and affiliated residential colleges. Since 1958 the Commonwealth has also assisted with the capital needs of the universities for building projects and for equipment, and grants for the building programmes of residential colleges affiliated with universities, including university halls of residence. In the 1961–63 triennium the Commonwealth matched State grants for buildings at teaching hospitals and in 1960 instituted grants for research at universities. As well as making grants available for State universities, the Commonwealth has continued to support the university institutions for which it is responsible.

In 1959, following the Report of the Committee on Australian Universities, the Commonwealth Government established the Australian Universities Commission under the *Australian Universities Commission Act* 1959. The Commission's principal functions are to advise the Prime Minister on financial assistance to Commonwealth universities and to States in relation to their universities and also on the balanced development of Australian universities. The Commission commenced its work in July 1959. Since its establishment the Commission has produced three reports; the first, presented in October 1960 and covering the years 1961 to 1963, recommended Commonwealth grants totalling $86 million for State universities. The Commission later recommended a Commonwealth grant of $4 million for teaching hospitals. *The States Grants (Universities) Act* 1960–1964 gave effect to the financial recommendations contained in the Commission's first report and subsequent recommendations for 1961–63. The Commission's second report was presented in August 1963, and recommended Commonwealth grants totalling more than $121 million for State universities, subsequently increased by $3.4 million for teaching hospitals, for the period 1964 to 1966. The *Universities (Financial Assistance) Act* 1963–1966 gave effect to the financial recommendations contained in the Commission's second report and subsequent recommendations for 1964–66. In August 1966 the third report was presented. It recommended Commonwealth grants to the State universities of almost $200 million for the period 1967–69, including almost $6 million for teaching hospitals. The Commonwealth Government's grant, including $5.7 million for teaching hospitals, was fixed at $174 million. The Act giving effect to these grants is the *Universities (Financial Assistance) Act* 1966.

Commonwealth grant for recurrent expenditure in universities. This is a continuation of matched grants provided since 1951. The maximum amounts available in 1964 to 1969 are shown in the following table. These amounts have been adjusted to allow for the recommendations of the Report of the Inquiry into Academic Salaries by Mr Justice Eggleston in 1964.

STATE UNIVERSITIES, ETC.: COMMONWEALTH GRANTS FOR RECURRENT EXPENDITURE, 1964 TO 1969

($'000)

University, etc.	1964	1965	1966	1967	1968	1969
Sydney	4,640	5,154	5,676	5,944	6,273	6,608
New South Wales(*a*) . .	4,450	4,352	4,832	5,088	5,377	5,789
New England . . .	1,364	1,454	1,550	1,624	1,712	1,806
Newcastle	. .	618	704	778	870	956
Macquarie	. .	112	224	549	978	1,401
Melbourne	3,868	4,298	4,796	5,074	5,319	5,572
Monash	2,072	2,770	3,358	3,881	4,309	4,687
La Trobe	. .	106	218	535	868	1,196
Queensland . . .	2,808	3,238	3,644	4,006	4,362	4,708
Townsville . . .	160	192	278	365	456	565
Adelaide	2,470	2,648	2,828	2,944	3,069	3,152
Flinders	112	208	418	709	828	947
Western Australia . .	1,794	1,974	2,166	2,316	2,481	2,660
Tasmania	744	844	942	1,033	1,128	1,233
South Australian Institute of Technology . . .	230	258	290	(*b*)	(*b*)	(*b*)
Total	**24,712**	**28,226**	**31,924**	**34,846**	**38,030**	**41,280**

(*a*) Includes grants for the university colleges at Wollongong and Broken Hill and, for 1964, the University College of Newcastle which became the University of Newcastle as from 1 January 1965. (*b*) In 1967–69 Commonwealth grants will be made through the Commonwealth Advisory Committee on Advanced Education.

Since 1961 matched grants have been made on a basis of $1 by the Commonwealth for every $1.85 of income received by a university from fees and State grants. From 1951 to 1960 the ratio was, in general, $1 to $3.

Commonwealth grants for the teaching and administrative costs of halls of residence and residential colleges. From 1964 the grants consist of unmatched Commonwealth payments each year of $5,000 (previously $4,000) to each college affiliated with or administered by a university, plus the sum of $30 for each resident student, and a further $10 for each non-resident student receiving tutorial assistance. The total Commonwealth grant paid in 1966 was $512,390. In the period 1967 to 1969 the basic grant for affiliated residential colleges will be varied according to the size of the colleges. Colleges with fewer than 100 students will continue to receive $5,000 per annum, while colleges enrolling 100, 120, 140, 160 and 180 students will receive extra grants in increments of $500 up to a maximum grant of $7,500 for a college of 180 or more students. For university halls of residence a Commonwealth grant of $5,000 per annum is payable without variation for the number of students.

Commonwealth grants for recurrent expenditure in university teaching hospitals. Since 1965 the Commonwealth Government has supported recurrent expenditure at teaching hospitals affiliated with universities. During 1966 the Commission held discussions concerning capital and recurrent grants for the 1967–69 triennium with the eight universities having medical schools.

The Commonwealth Government's support for recurrent grants in 1967 to 1969 relates to three items of expenditure. These are maintenance and service costs incurred on behalf of clinical students, administrative costs involved in clinical teaching, and books for students at libraries of teaching hospitals. The table below sets out the Commonwealth recurrent grants for teaching hospitals for 1965 and 1966 and those approved for each year of the 1967–69 triennium.

STATE UNIVERSITIES: MAXIMUM COMMONWEALTH GRANTS FOR RECURRENT EXPENDITURE AT TEACHING HOSPITALS, 1965 TO 1969

($)

University	1965	1966	1967	1968	1969
Sydney	38,600	74,000	100,141	102,646	105,979
New South Wales . . .	7,800	19,000			
Melbourne	26,200	54,400	51,228	52,912	53,860
Monash	9,400	22,000	27,579	31,298	33,404
Queensland	15,200	31,600	37,544	39,509	40,141
Adelaide	13,600	27,600	20,505	20,315	20,315
Western Australia . . .	9,600	19,400	18,758	19,305	19,557
Tasmania	..	1,400	4,211	4,617	6,196
Total	**120,400**	**249,400**	**259,966**	**270,602**	**279,452**

The basis of these grants is $1 from the Commonwealth for every $1.85 of income received by a university from fees and State grants for these purposes.

Commonwealth grants for building projects in universities. These grants, for the period 1967 to 1969, are shown in detail in the Second Schedule to the *Universities (Financial Assistance) Act* 1966. Payments are made up to a given maximum for each project, on the basis of $1 from the Commonwealth for every $1 of State grants. Since 1964 the grant, where appropriate, has included an allowance for furnishings and equipment. Previously, separate grants were provided for these items. Also, since 1964 the schedule showing grants for university building projects includes grants for university computing facilities, but grants for the erection and alteration of buildings for halls of residence administered by universities are shown elsewhere. The total Commonwealth grant under this heading for each University is shown in the following table.

STATE UNIVERSITIES: MAXIMUM COMMONWEALTH GRANTS FOR BUILDING PROJECTS, ETC, 1964 TO 1969

($'000)

University	1964–66	1967–69
Sydney	4,679	4,049
New South Wales . . .	3,800	3,799
Wollongong	79	506
New England	1,353	1,300
Newcastle	1,020	1,800
Macquarie	2,100	3,905
Melbourne	4,813	4,080
Monash	4,470	4,830
La Trobe	1,410	5,838
Queensland	2,737	3,280
Townsville	380	1,768
Nathan	100	100
Adelaide	832	1,484
Flinders	2,835	2,161
Western Australia . . .	1,921	2,000
Tasmania	936	1,008
Total	**33,465**	**41,908**

Commonwealth grants for buildings for halls of residence and affiliated residential colleges. The *States Grants (Universities) Act* 1963 shows the grant available to each university for both types of student residence in the Fourth Schedule. Previously, grants for buildings for university-administered halls of residence were included in the Schedule showing university building projects. Payments were made up to a given maximum for each project. For halls of residence the grant comprised $1 from the Commonwealth for every $1 of State grants. For affiliated residential colleges Commonwealth grants were up to half of the cost of a project, the other half being met from college or State government sources. For the 1964–66 triennium, however, payments were made up to a given maximum for each project on the basis of $1 from the Commonwealth for every $1 of residential college funds and State grants. This basis is to be continued for the 1967–69 triennium. The maximum Commonwealth grants available for each State university in this triennium are shown in the following table.

STATE UNIVERSITIES; MAXIMUM COMMONWEALTH GRANTS FOR BUILDINGS FOR HALLS OF RESIDENCE AND AFFILIATED RESIDENTIAL COLLEGES, 1964 TO 1969

($)

University	1964–66	1967–69
Sydney	773,250	528,000
New South Wales	687,000	1,026,000
New England	898,500	1,134,000
Melbourne	1,014,500	1,062,000
Monash	1,110,000	1,566,000
La Trobe	440,000	586,000
Queensland	648,550	926,000
Townsville	400,000	919,000
Adelaide	309,200	430,000
Flinders	35,000	..
Western Australia	756,500	374,000
Tasmania	262,500	401,000
Total	**7,335,000**	**8,952,000**

Commonwealth grants for building projects in teaching hospitals. Since 1961 the Commonwealth Government has supported building grants recommended by the Commission for teaching hospitals. The total Commonwealth grants under this heading for 1961-63, 1964–66 and those approved for 1967–69 are shown in the following table. Payments are made on the basis of $1 from the Commonwealth for every $1 of income received by universities from fees and State grants for this purpose. Where appropriate the grants include an allowance for furnishings and equipment.

STATE UNIVERSITIES; MAXIMUM COMMONWEALTH GRANTS FOR BUILDING PROJECTS, ETC. AT TEACHING HOSPITALS, 1961 TO 1969

($)

University	1961–63	1964–66	1967–69
Sydney	746,370	582,700	900,000
New South Wales	588,920	179,500	
Melbourne	685,475	617,500	1,417,000
Monash	832,195	384,600	673,300
Queensland	565,310	525,150	269,300
Adelaide	216,510	640,400	92,500
Western Australia	65,106	63,350	795,000
Tasmania	. . .	118,500	780,000
Total	**3,699,886**	**3,111,700**	**4,927,100**

Commonwealth grants for special research projects in universities. A Commonwealth grant of $1 million was made in the 1961–63 triennium for research equipment on the basis of $1 from the Commonwealth for every $1 of State grants. For the 1964–66 triennium the Australian Universities Commission recommended a Commonwealth grant for special research purposes of $5 million for the State universities on the basis of $1 from the Commonwealth for every $1 of State grants. Of this amount a Commonwealth grant of $3 million was allocated by the Commission in agreement with State governments. The remaining $2 million was allocated by the Australian Research Grants Committee (*see* page 651) to individuals or research teams whether inside or outside universities. The maximum Commonwealth grant available to each university in the 1967–69 triennium is shown in the following table. The amount of these grants that will be paid by the Commonwealth will depend on agreement between the Commonwealth and States.

STATE UNIVERSITIES; MAXIMUM COMMONWEALTH GRANTS FOR SPECIAL RESEARCH PURPOSES ALLOCATED BY AUSTRALIAN UNIVERSITIES COMMISSION 1964 TO 1969

($'000)

University	1964–66	1967–69
Sydney	625	564
New South Wales	395	360
New England	120	114
Newcastle	33	42
Macquarie	. .	18
Melbourne	625	540
Monash	175	270
La Trobe	. .	18
Queensland	275	264
Townsville	12	36
Adelaide	330	294
Flinders	40	36
Western Australia	245	234
Tasmania	125	90
Total	**3,000**	**2,880**

University income and expenditure

The following tables show particulars of the income and expenditure of each university in 1965 and the totals for 1961 to 1965.

UNIVERSITIES: INCOME, 1965
($'000)

University	Government grants(*a*)		Other income			Total income
	Cwlth Government grants	State Government grants	Donations and endowments(*b*)	Student fees(*c*)	Other income	
INCOME FOR SPECIFIC CAPITAL PURPOSES(*d*)						
Australian National	5,378	..	..	..	193	5,571
Sydney	1,028	1,651	416	..	..	3,096
New South wales	2,096	1,289	391	..	..	3,776
New England	574	914	32	..	45	1,565
Newcastle	800	1,006	..	..	..	1,806
Macquarie	184	3,229	..	..	..	3,413
Melbourne	1,214	784	169	..	..	2,168
Monash	2,148	2,148	443	..	..	4,739
La Trobe	376	181	..	..	..	557
Queensland	1,277	2,658	139	..	..	4,074
Adelaide	185	185	..	..	..	370
Flinders	1,755	1,755	..	..	35	3,545
Western Australia	909	909	..	..	..	1,818
Tasmania	217	217	..	..	..	434
Total	*18,142*	*16,926*	*1,592*	..	*273*	*36,932*
INCOME FOR OTHER PURPOSES						
Australian National	12,404	..	425	285	942	14,056
Sydney	6,508	6,617	2,132	3,142	904	19,302
New South Wales	5,166	6,354	596	1,957	772	14,845
New England	1,839	2,293	106	422	720	5,380
Newcastle	655	939	96	216	13	1,919
Macquarie	112	208	1	..	31	352
Melbourne	5,791	5,726	901	3,141	1,191	16,751
Monash	2,923	4,380	312	1,025	233	8,873
La Trobe	106	194	..	..	..	300
Queensland	3,883	4,543	1,633	2,299	389	12,748
Adelaide	3,318	3,953	447	1,160	639	9,517
Flinders	208	382	6	..	..	596
Western Australia	2,504	3,201	491	849	648	7,693
Tasmania	997	1,277	118	374	168	2,935
Total	*46,415*	*40,067*	*7,263*	*14,869*	*6,652*	*115,266*

For footnotes *see* next page.

UNIVERSITIES: INCOME, 1965—*continued*

($'000)

University	Government grants(*a*)		Other income			Total income
	Cwlth Government grants	State Government grants	Donations and endowments(*b*)	Student fees(*c*)	Other income	
TOTAL INCOME						
Australian National	17,782	..	425	285	1,135	19,627
Sydney	7,536	8,268	2,549	3,142	904	22,398
New South Wales	7,262	7,642	987	1,957	772	18,621
New England	2,413	3,207	138	422	765	6,945
Newcastle	1,455	1,945	96	216	13	3,725
Macquarie	296	3,437	1	..	31	3,765
Melbourne	7,005	6,511	1,070	3,141	1,191	18,918
Monash	5,071	6,528	755	1,025	233	13,612
La Trobe	482	375	..	..	..	857
Queensland	5,161	7,201	1,772	2,299	389	16,822
Adelaide	3,503	4,138	447	1,160	639	9,887
Flinders	1,963	2,137	6	..	35	4,141
Western Australia	3,413	4,110	491	849	648	9,511
Tasmania	1,215	1,494	118	374	168	3,369
Total	**64,556**	**56,993**	**8,855**	**14,869**	**6,925**	**152,198**

(*a*) Includes funds expended by various government departments and other bodies in respect of universities but not controlled by the universities. (*b*) In the case of endowments, only income from property and other investment of these endowments is included. The treatment of donations depends on the terms of the gift, etc. When the capital sum is specified to be expended over several years, only the portion of the capital sum allocated to each year is shown as income in that year, but if the capital sum is available for spending without limitation as to time, the full amount is recorded as income in the year it is received, irrespective of whether it is spent in that year or not. The capital value of land and buildings donated to the universities is not recorded as income, unless these properties are sold, in which case the amounts realised are included. (*c*) Excludes fees collected on behalf of student unions. (*d*) Income received specifically for new buildings, major alterations and additions to buildings, installation of services, purchase of land and buildings and major equipment.

UNIVERSITIES: EXPENDITURE, 1965

($'000)

University	Teaching and research	Administration and general overhead	Libraries	Buildings, premises, grounds	Sundry auxiliary expenditure	Total expenditure
Australian National	10,096	1,485	610	5,469	1,006	18,666
Sydney	14,351	1,624	812	3,420	418	20,624
New South Wales	10,696	1,318	628	6,799	923	20,365
New England	2,817	642	231	1,872	999	6,561
Newcastle	1,393	197	155	1,677	35	3,458
Macquarie	9	166	117	3,541	..	3,832
Melbourne	12,579	1,169	762	3,449	1,016	18,975
Monash	6,008	925	573	4,867	321	12,693
La Trobe	..	88	206	242	..	536
Queensland	10,192	876	549	5,087	276	16,980
Adelaide	7,070	679	466	1,102	525	9,843
Flinders	347	91	200	3,744	2	4,384
Western Australia	5,545	570	350	2,038	753	9,257
Tasmania	2,173	329	171	668	185	3,526
Total	**83,276**	**10,159**	**5,830**	**43,976**	**6,459**	**149,701**

UNIVERSITIES: INCOME AND EXPENDITURE, 1961 TO 1965
($'000)

University	1961	1962	1963	1964	1965
Australian National—					
Income	11,328	11,181	12,991	16,609	19,627
Expenditure	10,106	12,251	r13,938	16,126	18,666
Sydney—					
Income	14,033	16,439	19,232	21,710	22,398
Expenditure	14,605	16,342	17,302	20,547	20,624
New South Wales—					
Income	14,141	15,623	16,295	19,105	18,621
Expenditure	14,905	15,801	15,247	17,278	20,365
New England—					
Income	3,846	4,167	5,533	6,358	6,945
Expenditure	4,086	4,675	4,887	6,154	6,561
Newcastle—					
Income	..	..	..	..	3,725
Expenditure	..	..	..	..	3,458
Macquarie—					
Income	..	..	..	..	3,765
Expenditure	..	..	..	..	3,832
Melbourne—					
Income	11,195	14,613	15,389	16,911	18,918
Expenditure	r12,132	15,270	r15,131	r16,908	18,975
Monash—					
Income	7,998	8,509	8,294	11,335	13,612
Expenditure	7,842	9,055	8,254	10,701	12,693
La Trobe—					
Income	..	..	..	..	857
Expenditure	..	..	..	..	536
Queensland—					
Income	8,361	9,889	10,441	12,812	16,822
Expenditure	8,322	8,727	9,985	12,727	16,980
Adelaide—					
Income	7,007	7,837	9,152	11,226	9,887
Expenditure	6,733	7,478	10,020	10,749	9,843
Flinders—					
Income	..	..	..	(*a*)	4,141
Expenditure	..	..	..	(*a*)	4,384
Western Australia—					
Income	4,807	6,045	7,414	7,352	9,511
Expenditure	5,127	5,707	7,566	7,672	9,257
Tasmania—					
Income	2,549	3,304	2,763	3,235	3,369
Expenditure	2,647	3,264	2,829	2,995	3,526
Total income	**85,265**	**97,606**	**107,503**	**r126,652**	**152,198**
Total expenditure	**r86,505**	**r98,570**	**r105,160**	**r121,857**	**149,701**

(*a*) Included with the University of Adelaide.

Other tertiary institutions

In addition to the degree-granting universities, various other institutions offer courses at tertiary level which may lead to a certificate, diploma or similar qualification. Included among these institutions are technical colleges, which have been described on pages 599–602.

Colleges of advanced education

In 1966 the Commonwealth Government, acting on the advice of the Commonwealth Advisory Committee on Advanced Education, agreed to assist the States in the establishment of colleges of advanced education. It is envisaged that they will provide mainly tertiary education and training with vocational emphasis, as distinct from the academic education provided by the universities. In some States, colleges of advanced education will be developed from existing technological institutions. In the Australian Capital Territory and Tasmania, separate colleges of advanced education are being established.

Teachers colleges

The State Education Departments conduct teachers' colleges to train teachers for government schools. There are eight colleges in New South Wales, thirteen in Victoria, four in South Australia, three in Western Australia, and two each in Queensland and Tasmania, making a total of thirty-two colleges. These colleges provide a variety of teacher training courses, including those for primary teachers, secondary teachers, and those specialising in teaching infants, handicapped children, art, music, and handicrafts. A description of the courses is given on pages 594–5. Teachers colleges are co-educational and, in the larger States, have been established in country areas as well as in cities. Students entering them have completed their secondary schooling and are usually about seventeen years of age. The principal and staff of the colleges are responsible to the Director of Education in the State concerned.

Kindergarten training colleges

The Kindergarten Unions in all States except Tasmania have established teacher training colleges providing three-year courses. The minimum entrance age is usually seventeen years and at least the Leaving Certificate or its equivalent is required for admission. In addition, in New South Wales the Sydney Day Nursery and Nursery Schools' Association maintains a training college.

The pre-school teacher training courses in these colleges are all full-time diploma courses and are similar in content and standards. Teachers are trained for work with children between the ages of two and seven years, and the training courses include the study of general educational theory, the theory of pre-school education, general cultural subjects, and art and crafts (including music). In addition, training is given in practical pre-school teaching.

Agricultural colleges

There are seven State agricultural colleges—Hawkesbury and Wagga (New South Wales), Longerenong and Dookie (Victoria), Lawes (Queensland), Roseworthy (South Australia), and Muresk (Western Australia), offering a comprehensive course of two or three years leading to the award of a Diploma in Agriculture or in a specialised field such as animal husbandry, dairy manufactures or horticulture. The School of Horticulture, Burnley, Victoria, also offers a three-year diploma course.

Agricultural colleges are government institutions administered by the State Departments of Agriculture in New South Wales, Victoria, South Australia, and Western Australia. and by the State Department of Education in Queensland. Their purpose is to teach the principles and practices of agriculture and its specialised branches to those intending to take up farming as a career and to those who propose to enter such occupations as agricultural field officer or technical officer in food processing industries.

The minimum entrance standard is the penultimate major secondary examination of the State concerned, except in Western Australia where it is the sub-leaving examination. As entry is competitive, there is a tendency for students to hold better than the minimum qualifications. All the colleges are fully residential and the minimum age at which students may enter them varies from fifteen to seventeen years, depending on the college and the type of course.

In addition to their formal courses of training, agricultural colleges offer short courses of from three days to one month to farmers and teachers in country districts.

Schools of forestry

Since 1965 tertiary training in forestry, previously carried out by the Australian Forestry School, Canberra, has been provided by a Department of Forestry in the Faculty of Science within the Australian National University's School of General Studies. A four-year degree course is offered. Training in forestry is also carried out at the Creswick School of Forestry in Victoria.

Conservatoria of music

There are conservatoria of music in five States. Those in Victoria and South Australia are attached to the Universities of Melbourne and Adelaide respectively. The New South Wales State Conservatorium, the Queensland State Conservatorium and the Tasmanian Conservatorium are controlled by the respective Departments of Education. All five conservatoria offer diploma courses for entry to which matriculation status is not required; at Sydney, Melbourne, Adelaide, and Western Australia degree courses are also available to matriculated students.

The Canberra School of Music, established in July 1965, is administered by the Department of the Interior. In 1967 a three-year full-time diploma course consisting of both practical and theoretical studies is being offered for the first time.

Service and administrative colleges

Each of the three armed services maintains institutions for the training of officers. Descriptions of these can be found in the chapter Defence. The Royal Military College, Duntroon, Australian Capital Territory, has arrangements with universities whereby its graduates may enter university courses at an advanced stage. The Royal Air Force Academy, Point Cook, Victoria, has evolved from the Royal Australian Air Force College, which was established in 1948 as a tertiary training centre to provide a professional education for permanent officers of the Air Force. It is affiliated with the University of Melbourne and has adopted that University's Bachelor of Science course. The Academy is also permitted to present students for higher degrees in science and the degree of Doctor of Philosophy. Students may also proceed to the University of Sydney to take a degree in engineering.

The Australian School of Pacific Administration, controlled by the Department of Territories, trains students in the various aspects of service and administration in Commonwealth Territories, including teaching.

Australian Administrative Staff College

Opened in 1957, the Australian Administrative Staff College is a private organisation working in close co-operation with government and other public bodies, the armed services and the trade union movement. It was founded, and is owned, by a large group of leading Australian companies and has its permanent premises at Mount Eliza, near Melbourne. The College conducts residential courses for administrators to further the study of the problems which arise in managerial work.

Commonwealth activities in education

Fields of activity

Although education is primarily the responsibility of the States, the Commonwealth has instituted a number of measures of direct assistance to educational institutions and to students. It is responsible for public education in its own Territories and is engaged in educational activities incidental to its responsibilities in such areas as defence, external relations, immigration and social services. Activities of the Commonwealth in education are not administered by a single authority but are divided among a number of departments and instrumentalities. Education in Commonwealth Territories is described in the chapter The Territories of Australia; various schools and colleges for the defence services are treated in the chapter Defence; and other activities which may be considered broadly as educational are described in the section on Broadcasting and Television and elsewhere in the chapter Transport, Communication and Travel.

Department of Education and Science

A new Commonwealth Department known as the Department of Education and Science was created in December 1966. The new Department, which has absorbed the former Education Division of the Prime Minister's Department including the Commonwealth Office of Education, is concerned with grants for educational purposes, e.g. for universities, colleges of advanced education, technical schools, and science buildings, as well as with the new grants for building teachers colleges. It is responsible for assistance to students for the scheme of Queen Elizabeth II Fellowships and for special scholarships offered by overseas countries for Australians. Among the Department's responsibilities are matters in the field of international relations in education, including Unesco and Commonwealth Co-operation in Education, and liaison with State and other education bodies throughout Australia. The Department provides professional advice on education to other Commonwealth departments and authorities. It administers grants to such bodies as the Academy of Science, the Humanities Research Council, the Social Sciences Research Council, and the Institute of Aboriginal Studies, and is responsible for grants for scientific research such as those recommended by the Australian Research Grants Committee.

The *Australian Universities Commission* and the *Commonwealth Advisory Committee on Advanced Education* are responsible to the Minister for Education and Science. The Minister is also responsible for the *Commonwealth Scientific and Industrial Research Organization*, the *National Standards Commission*, the *Australian National University*, and the *College of Advanced Education* to be established in Canberra. The Prime Minister's Department continues to be responsible for the National Library and for art, literature and other cultural activities in which the Commonwealth is interested.

Commonwealth Scholarships Board

This Board, under its former title of the Universities Commission, was established by the *Education Act* 1945. Prior to 1945 the Commission had functioned under wartime National Security Regulations. The Board consists of a chairman, who is the Director of the Office of Education, and three other members. The main responsibilities of the Board at present are advising the Government on the policy and administration of Commonwealth university and advanced education scholarships and Commonwealth post-graduate awards. The Board is responsible for arranging and supervising the training of ex-service personnel and war widows at university and university type institutions under the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme. It was also responsible for arranging and supervising training under the Commonwealth Reconstruction Training Scheme until its completion at the end of 1961.

Advisory bodies

The Commonwealth Government has established various advisory bodies whose fields of concern relate to matters of education. Already mentioned (pages 613–14) is the Australian Universities Commission, which advises the Commonwealth Government on university development. The Commonwealth Advisory Committee on Advanced Education advises the Minister on the balanced development of tertiary education outside universities. Within financial limits nominated by the Minister, the Committee recommends grants to the States for colleges of advanced education and directs grants to any such colleges established by the Commonwealth. The Australian Research Grants Committee advises the Minister on the merit of applications for research grants from individuals and research teams, and suggests the allocation of funds. The Queen Elizabeth II Fellowships Committee advises the Minister on the merit of applicants for these Fellowships, which are awarded for post-doctoral study in the physical and biological sciences, and advises generally on the administration of this scheme of Fellowships.

The Commonwealth Government appointed in 1965 a committee of inquiry into the need for a college of advanced education in the Australian Capital Territory. The committee's report was presented to Parliament in October 1966 and the Government accepted its recommendation that a college—to be known as the Canberra College of Advanced Education—should be established.

The report of the Advisory Committee on Educational Television appointed in 1964 by the Australian Broadcasting Commission was tabled in Parliament in May 1966.

Assistance to students

The Commonwealth Government provides financial assistance to students who are undergoing tertiary training through a number of scholarship schemes, all of which are administered by the Commonwealth Scholarships Board. The most extensive of these is the Commonwealth University Scholarship Scheme, under which 6,000 scholarships are offered annually to undergraduates at universities.

The majority of the undergraduate scholarships are open entrance awards allocated among the States on a population basis and awarded competitively on the results of examinations accepted for matriculation in each State. In addition, 2,000 later year awards are available to students who have completed one or more years of a course, and a small quota of mature age awards is reserved for persons not less than twenty-five years of age. The upper age limit of thirty, which up to 1967 was a condition of these awards, has been removed. All successful applicants have their fees paid. Scholarship holders may also be paid a living allowance subject to a means test. As from 1 January 1967 the maximum rates of allowance have been $852.80 per annum for a scholar living away from home and $559 per annum when living at home.

In addition to these awards the Commonwealth Government provides up to 1,000 scholarships each year for students taking approved courses of advanced education at institutions other than universities. Benefits are as for Commonwealth university scholarships.

In 1959 a scheme of Commonwealth post-graduate awards tenable at Australian universities was introduced, under which 100 awards were made available each year. The benefits comprise a living allowance without means test and payment of university fees. The possible number of post-graduate awards was increased to 225 from 1963, to 400 from 1965, and to 500 from 1967. The Commonwealth Government contribution towards the stipend in respect of each award was raised to $1,800 per annum from 1 January 1964. Awards may be renewed annually up to a maximum period of four years.

The Commonwealth schemes of secondary and technical scholarships are referred to on page 598.

International relations

The Commonwealth has been actively involved in the considerable extension which has recently taken place in relations and exchanges with other countries in the field of education. A significant encouragement to this growth has been membership of Unesco, to which Australia has belonged since 1946 when the organisation was founded.

Twelve specialist Unesco committees in Australia are responsible for a wide and varied programme of activities. The Committees' projects include the organisation of Australian and regional seminars, information programmes, and the preparation and circulation of travelling exhibitions which deal with subjects forming part of Unesco's programme. The Australian National Advisory Committee for Unesco co-ordinates the work of the specialist committees and advises the Commonwealth Government on Australian participation in Unesco.

With the co-operation of educational institutions, State Education Departments and other bodies, the Commonwealth has accepted increasing commitments in schemes of international assistance and co-operation. The Colombo Plan Technical Co-operation Scheme, the United Nations Expanded Programme of Technical Assistance, the Australian International Awards Scheme, the Australian South Pacific Technical Assistance Programme, and the Special Commonwealth African Assistance Plan are some of the programmes through which the Commonwealth Government is providing training for overseas students in Australia and is sending Australian experts and equipment to many of the newly developing countries, especially in Asia and Africa. Australia is also actively sharing with other Commonwealth countries in the scheme of Commonwealth Co-operation in Education which includes the Commonwealth Scholarship and Fellowship Plan. There were some 1,850 sponsored foreign students in Australian educational institutions at 30 June 1966, compared with about 800 in 1956. Over three-quarters of these were Colombo Plan trainees, most of whom were studying in various fields of engineering, science, medicine, education, and economics.

In 1964, by agreement between the United States and Australian Governments, the Australian-American Educational Foundation, financed jointly by the two Governments, was established to operate a scheme of educational exchanges between the United States and Australia. This new scheme has similar aims and purposes to the Fulbright Scheme which it replaces and which had operated wholly on American funds.

Support is given to Australian participation in many international governmental and non-governmental organisations. For example, Australian educationists have attended yearly meetings of the International Bureau of Education, and regular contributions are made to the Bureau's international surveys into various aspects of education. Assistance has been given to bodies such as the Australian Teachers' Federation in sending delegates to meetings of the World Confederation of Organisations of the Teaching Profession.

Grants for other educational purposes

The Commonwealth gives assistance to various educational schemes and institutions. Grants are made each year by the Commonwealth to the Australian Pre-school Association for the development of kindergarten education, to the Commonwealth National Fitness Council, to the Australian Council for Educational Research, to the Department of Adult Education at the University of Sydney for the publication of the *Current Affairs Bulletin*, and to assist in the provision of training in occupational therapy, physiotherapy and nursing.

Migrant education

The Commonwealth Government's post-war immigration policy has brought to Australia a large number of immigrants with little or no knowledge of English. To assist the assimilation of these newcomers into the Australian community, a system of migrant education has been developed to teach them English and to give them information about Australia. This service is provided free of charge to immigrants above school leaving age.

Before arriving in Australia settlers who do not speak English are given some instruction in English by shipboard education officers. Some may have attended classes in Europe organised by the Inter-governmental Committee for European Migration, with which the Australian Government co-operates. In Australia, evening classes are arranged by State Education Departments wherever nine or more migrants in country areas, or twelve or more migrants in city areas, wish to learn English. There is also available through State Education Departments a free correspondence course in English. In addition, English lessons are broadcast regularly by the Australian Broadcasting Commission. The Commonwealth Office of Education provides technical advice on all aspects of migrant education and is responsible for the preparation of teaching materials, while responsibility for the overall supervision of the programme rests with the Department of Immigration, which also meets the costs.

In November 1966, 12,000 migrants were enrolled in classes and 7,045 were enrolled in radio and correspondence courses. Since the inception of the programme in 1948 approximately 530,000 migrants have been enrolled for English tuition.

Technical training by government departments

Although most needs of departments for trained staff are met by apprenticeship schemes and other technical college courses and by the universities, some departments provide training which is not available elsewhere. The most important field for which such training is provided is the training of telephone, telegraph, radio, and television technicians by the Postmaster-General's Department.

Adult education

The term 'adult education' as used in Australia refers mainly to non-vocational educational and cultural activities for adults. While the nature of the recognised adult education authorities varies from State to State, their major activities have many common features. Regular courses of lectures are organised on such topics as literature, music, drama, international affairs, languages, and crafts. Some authorities also organise discussion groups, festivals and summer schools, and provide special services for groups in remote areas. In 1960 an Australian Association of Adult Education was formed, and its first annual conference was held in Adelaide in 1961. The Association handles matters pertaining to adult education at a national level and arranges liaison with similar bodies in other countries.

One of the first bodies active in the field of adult education in Australia was the Workers' Educational Association, which formed associations in all States in 1913. Its aims are to bring the universities into closer relationship with the community in general and to provide for higher education in civic and cultural subjects. These associations have been superseded by Adult Education Boards or Councils set up by the State Governments in Victoria, Queensland and Tasmania, and by the University in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the Governments concerned.

There are throughout Australia various other organisations which are active in the field of adult education. The World Education Fellowship, for example (*see* page 628), has since its inception in Australia been interested in adult education.

The organisation of adult education and some of the activities in each State are described in the following pages.

New South Wales

The majority of State Government grants for adult education are allocated on the advice of the Adult Education Advisory Board. Grants are made to the University of Sydney (Department of Adult Education), the Workers' Educational Association, the University of New England (Department of University Extension), the University of New South Wales (Division of Post-graduate Studies), the Public Library of New South Wales (Adult Education Section), and the World Education Fellowship. The Arts Council of Australia (New South Wales Division) receives its grant direct from the State Government.

University of Sydney. The work of the Department of Adult Education is carried out under the supervision of two Senate committees, namely the University Extension Board and the Joint Committee for Tutorial Classes. A third committee, the Consultative Committee on Adult Education, is convened upon request to clarify questions of policy.

The University Extension Board provides two forms of education—the extension of existing university education to the public in the form of lectures, or to graduates in the form of refresher courses; and the extension of academic education beyond the existing university curriculum by special courses or classes in subjects not provided by university departments. The Joint Committee for Tutorial Classes works in conjunction with the Workers' Educational Association. Its activities include the provision of tutorial classes in a wide variety of subjects, discussion groups, and 'kits' to serve the needs of country districts and people who cannot be catered for by tutorial classes. It also publishes the fortnightly *Current Affairs Bulletin.*

University of New South Wales. The Division of Post-graduate Studies was formed in 1961 and is largely financed by the Council of the University. Its major concern is to provide university courses of an academic nature through correspondence, radio and television. In addition, however, extension courses in the humanities, languages and child development are offered.

University of New England. The Department of University Extension at the University of New England brings university extension activities especially to the people of northern New South Wales and conducts lectures, discussions, courses, radio talks, and classes in arts and social sciences in towns throughout this region. Short residential courses are held on topics of interest to primary producers in the area. Vacation schools attract participants from many other areas as well.

Workers' Educational Association. In addition to co-operating with the University of Sydney Department of Adult Education, the Workers' Educational Association itself provides classes in a wide variety of fields. It publishes *The Australian Highway*, a bi-monthly journal of adult education, and maintains a property near Sydney where short residential schools are held through the year. The Association also organises educational conferences and public lecture series at frequent intervals.

Public Library of New South Wales. The Public Library of New South Wales Adult Education section provides an adult education library service for all classes and groups conducted by the bodies mentioned above, with the exception of the University of New South Wales Division of Postgraduate and Extension Studies.

New South Wales Department of Education. The New South Wales Department of Education has established evening colleges consisting of classes held in school buildings and staffed largely by departmental teachers. Such colleges provide a wide range of educational, cultural and leisure activities for adolescents and adults, and at some there are facilities enabling adults to prepare for public examinations.

Arts Council of Australia. Adult education of a more informal kind is provided by the New South Wales Division of the Arts Council of Australia, which maintains a mobile theatre unit and organises touring ballet, opera and drama companies to country towns.

Victoria

The Council of Adult Education is a government instrumentality established by the *Adult Education Act* 1946. Its aims are to stimulate adult education in Victoria and to encourage voluntary organisations and associations by giving them advice and assistance. Its activities include a variety of classes, usually consisting of ten to twenty sessions, on topics ranging from social studies, psychology, language, and literature to crafts, music and drama. Four separate non-residential schools are held in the Melbourne area. The Council publishes a monthly newsletter *Group Affairs* and a quarterly journal *Adult Education.* Its group service assists and provides programme material for discussion groups formed by organisations and individuals throughout the State. An important development is the extension of the Council's activities, including classes and discussion groups, to the prisons, as part of a general plan for penal reform in Victoria. The Council's income is derived mainly from a government grant, but also from student fees and Community Arts Service performances.

The Adult Education Association is a financially self-supporting voluntary association. Groups, generally consisting of students of Council classes, are formed and organise their own programmes.

The University of Melbourne Extension Committee arranges free public lectures and organises classes for matriculation students on points of interest in their studies.

The Victorian Education Department arranges classes in commercial subjects, arts and crafts, and shorthand and typing. Evening classes in leaving and matriculation subjects are also offered. A recent innovation is the establishment of the Wangaratta Centre, where the financial responsibility for the running of activities is in the hands of a local committee.

The Y.W.C.A. runs courses in physical education, languages, crafts and manual skills.

Queensland

The Queensland Board of Adult Education was constituted in 1944 and is responsible under the Minister for Education for the provision of adult education facilities throughout the State. Under the executive officer of the Board are seven district officers, one based in Brisbane and six in large country towns, who are responsible for organising activities in country areas. The cost of the programme is borne by the State Government and admission to all courses is free. Activities include lectures, group meetings on a variety of topics, generally short-term, but some extending over a full year, and film screenings. Library and film services are provided. A Public Lecture Committee established by the University of Queensland is responsible for organising public lectures by local speakers and distinguished visitors to the university. Through the Institute of Modern Languages the university provides facilities for the study of modern languages by members of the general public.

The Queensland Division of the Arts Council of Australia sponsors and organises lectures, film screenings, exhibitions, drama festivals, and professional performances.

South Australia

Since 1917 the University of Adelaide, through the Joint Committee for Tutorial Classes, has provided in the metropolitan area a series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest, in co-operation with the Workers' Educational Association of South Australia. In 1957 a Department of Adult Education was established in the university and a full-time Director appointed. A wide range of university extension courses and educational conferences, summer schools and seminars, including a number dealing with subjects at post-graduate level, are organised directly by the university. The Workers' Educational Association of South Australia, in addition, carries on an independent educational programme of classes, schools, exhibitions, and film festivals.

The State Education Department also arranges an extensive programme of educational activities for adults. In addition to classes in academic and craft subjects, the Department's adult education centres offer a wide range of leisure interests and cultural subjects.

The Arts Council of Australia (South Australian Division) organises adult education activities in the liberal arts.

Western Australia

Adult education in Western Australia is organised by the Adult Education Board established in 1928 under the terms of the statutes of the University of Western Australia. The Board has a considerable degree of autonomy. Its executive officer is the Director of Adult Education. In the metropolitan area the Board conducts classes, refresher courses and short schools, conferences, seminars,and public lectures, and maintains a library. The Board's country work operates mainly through a box library scheme for discussion groups. Lecture tours and week-end schools are held, and local adult education is encouraged through local committees. Metropolitan work and country work are drawn together in an annual summer school. The Board also operates a community arts service and arranges screenings of foreign films. Regional drama festivals and music festivals are arranged, culminating in the annual Festival of Perth, inaugurated and administered by the Board.

Tasmania

Some form of adult education has existed since the formation in 1913 of a Workers' Educational Association, which worked in conjunction with the University of Tasmania for a number of years. The Association received a grant through the university, which had a Director of Tutorial Classes. Later, the grant was paid direct to the Association by the Government, and the university's tutorial department ceased to exist. The Adult Education Board, established under the *Adult Education Act* 1948, organises classes on a wide range of subjects. The Board sponsors special lectures, film screenings and art exhibitions, recitals of music, and dramatic performances in both city and country areas. Its income is derived from a State Government grant and from students' fees. The executive officer of the Board is the Director of Adult Education. Activities are organised on a regional basis by organisers based in Hobart, Launceston and three large country centres.

The Arts Council of Australia (Tasmanian Division), which works in close contact with the Adult Education Board, organises exhibitions, concerts and public performances.

Australian Capital Territory

The School of General Studies of the Australian National University has organised classes and discussion groups through its Adult Education Department since 1959. The Arts Council of Australia (A.C.T. Division) organises cultural activities of general community interest. The New South Wales Department of Education Evening College courses are offered at the Canberra High School Evening College.

Overseas students in Australian educational institutions

The development of closer ties in education between Australia and other countries and the demand for education in many countries in Asia, Africa and the Pacific have brought about a remarkable growth in the number of overseas students who come to Australia to further their education. Part of the growth and much of the awareness of the facilities available may be attributed directly to the schemes mentioned on pages 623–4. Since 1955, when there were about 3,500 overseas students in Australia, the number has increased to some 14,000 in 1966. More than half attend institutions of higher education such as universities and technical colleges. Between 1955 and 1966 the numbers of foreign students in institutions of higher education had risen from about 1,800 to 7,300, most of whom came from Asian countries. Australian institutions have shown a readiness to accept overseas students, and in many cases special provisions have been made to suit their needs. Nevertheless, population growth and the demand for education, especially for higher education, within Australia have forced many institutions to restrict the admission of overseas students in common with Australian students.

Organisations associated with education

Australian Council for Educational Research

The Australian Council for Educational Research, a non-governmental body, is engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardises and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State Governments give substantial financial support.

World Education Fellowship

The World Education Fellowship, formerly known as the New Education Fellowship, is a world organisation of parents, educators and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published twice a year. A major conference of the world organisation was held in Australia in 1962, during which prominent educationists from Australia and overseas met in all States.

Australian College of Education

The Australian College of Education was formed in 1959. Its aim is to bring together leading teachers and administrators in every field of education, to raise the standard of the profession of education in Australia, to establish and proclaim fundamental educational values, and to recognise outstanding contributions to educational practice. Chapters of the College have been set up in all States, and several of the addresses and papers delivered at meetings of the College have been issued in published form.

Parent and citizen organisations

In Australia, where all government schools are administered by central departments, there is limited opportunity for local participation in education. Public interest is expressed through parents' committees or organisations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote an interest in the school by bringing parents and teaching staff together, to help provide supplementary teaching aids and recreation materials, to foster the regular attendance of children at school, and to help find accommodation for teachers. In several States the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools are maintained by groups in some States. Parent groups have established school children's insurance schemes, operated through State Government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils of federations of parents' groups are associated in a federal body, the Australian Council of School Organisations.

CULTURAL ACTIVITIES

Libraries

The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries, the passing of legislation in all States to increase library services, and the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia and incorporated by Royal Charter in 1963, and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations in all States, for which students are prepared by courses of instruction. Formal library schools are conducted by the National Library of Australia, Canberra, the Library Board of New South Wales (held at Newcastle Public Library), and the State Library of Victoria, Melbourne. In 1960 the first library school to be attached to an Australian University was opened in the University of New South Wales, and the Royal Melbourne Institute of Technology set up a library school in 1963.

Commonwealth libraries

National Library of Australia. This Library grew directly from the Library of the Commonwealth Parliament established in Melbourne in 1901, the Committee of which soon afterwards announced its intention of developing a library patterned on the Library of Congress at Washington, U.S.A., capable of serving purposes beyond those essential to the Parliament itself, appropriate to a national library and on a national scale. This policy was steadily pursued, so that, in addition to its primary function of serving Parliament, it gradually became a central source of information for the Government and its departments and other agencies, and assumed increasing reference and bibliographical responsibilities in relation to scholarship and research in Australia and abroad. It was also influenced by the basic elements of the national library concept of the older countries of Europe: namely, that a national library is the proper place to collect the national literature systematically and to make it known and available for use, and that it is a place to which scholars may turn for what is most significant in the literature of other countries. For these growing extra-Parliamentary activities the Parliamentary Library Committee, in 1923, adopted the title of Commonwealth National Library.

In 1957 a committee appointed to examine the future control and functions of the Commonwealth National Library recommended its establishment as the National Library of Australia, separate from the Parliamentary Library, with wide functions and controlled by a board subject to a Minister; the transfer, as a separate agency to an appropriate department, of its Archives Division, which constituted the Commonwealth's agency for the custody and organisation of departmental records of permanent value which need no longer be held within departmental offices; and that the Parliamentary Library be a separate library under separate Parliamentary control. Continuing co-operation, where possible, between the two libraries was also proposed.

Effect was given to these recommendations by the *National Library Act* 1960, which created the National Library of Australia as a body corporate under the control of a Council of nine members, of whom one is a Senator elected by the Senate, one a member of the House of Representatives elected by that House, and seven appointed by the Governor-General. Its functions are: to maintain and develop a national collection of library material, including a comprehensive collection relating to Australia and the Australian people; to make the national collection available to such persons and institutions in such manner and subject to such conditions as the Council determines with a view to its most advantageous use in the national interest; to make available such other services in relation to library matters and material, including bibliographical services, as the Council thinks fit, particularly for the purposes of the library of the Parliament, the Departments and authorities of the Commonwealth, and the Territories of the Commonwealth; and to co-operate in library matters (including the advancement of library science) with authorities or persons, whether in Australia or elsewhere.

The National Library comprehensively collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films, and sound recordings. It is assisted in this by the deposit provisions of the *Copyright Act* 1912–1966 and has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews Ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts, and printed material in 1959, the David Nichol Smith collection of 18th century English literature in 1962, the Clifford Family collection in 1964, and the Ferguson collection which is still under transfer. A feature of the Library's Australian work is the copying on microfilm, in association with the Public Library of New South Wales, of all important unique material overseas relating to Australia, including over three million pages in the Public Record Office in London. Compilation of a Guide to Collections of Manuscripts Relating to Australia began in 1964. The Library maintains a permanent exhibition of selected paintings, prints and other historical material from its collections. This exhibition is displayed in Parliament House, Canberra.

The Library publicises Australian publications, both at home and abroad, through select lists, the *Australian Books* (annual), the *Australian Public Affairs Information Service* which is a subject index to current literature (monthly with an annual cumulation), and by collections of Australian books maintained by it at all posts at which Australia is officially represented abroad. In London and New York the National Library maintains and staffs Australian reference libraries supervised by its own Liaison Officers in those centres. In the discharge of its wider bibliographic responsibilities, the library publishes the *Australian National Bibliography* (weekly with monthly and annual cumulations), which lists books, pamphlets, maps, prints, sheet music, government publications, the first issue of each new periodical or newspaper, and moving picture films produced in or relating to Australia. Commonwealth and State official documents, both monographic and serial, are listed in *Australian Government Publications* (annual). The Library is also building up union catalogues of serials in the social sciences and humanities, and of monographs in Australian libraries. A revised loose-leaf edition of *Serials in Australian Libraries: Social Sciences and Humanities*, of which the letters A–E have been issued since 1964, will progressively supersede the interim edition published in two volumes in 1963.

In 1956 the Australian Bibliographical Centre was established within the National Library to serve as the secretariat of the Australian Advisory Council on Bibliographical Services. The Council, made up of representatives of the National Library, State libraries and library boards, Parliamentary libraries, public libraries, college libraries, school libraries, special libraries, the Commonwealth Scientific and Industrial Research Organization, each of the universities, the Library Association of Australia and archivists, plans the further development and co-ordination of bibliographical services and co-operates with Unesco and its committees. The Centre organises bibliographical projects recommended by the Council and operates as a centre for bibliographical information in Australia and overseas. It has published a *Union List of Newspapers in Australian Libraries:* Part 1: *Newspapers published outside Australia* (1959); and Part 2:

Newspapers published in Australia (1960). Both were supplemented in 1964. *Resources of Australian Libraries*, a summary report of a survey conducted for the Council in 1961 by Maurice F. Tauber,was published in 1963.

The Library acts as a central library of documentary and educational films, its film collection containing approximately 8,000 titles, together with Australian historical films and a great number of film strips. It published *Australian Films: a Catalogue of Scientific, Educational and Cultural Films*, 1940–58 in 1959 and annual supplements in succeeding years. A revised edition of the *Catalogue of* 16-*mm. Films*, which lists all films available for loan, was published in 1960. It was supplemented in 1964 and annual accession lists are issued. Special efforts are made to discover and preserve samples of early Australian film production.

Through its Extension Services Section the Library conducts the Canberra Public Library Service for residents of the Australian Capital Territory, to whom 774,375 books were lent during 1965–66. It also assists in the provision of similar services in the Northern Territory, the Territory of Papua and New Guinea, and Norfolk Island.

The National Library's collections contain approximately 885,000 volumes, 26,000 paintings, pictures and prints, 15,000 reels of microfilm, 1,000 running feet of manuscripts, 25,000 motion picture stills, 16,000 reels of moving picture films, 142,000 maps, and 400,000 aerial photographs. Special features of the book collection are its strong holdings of Australiana, materials relating to the Pacific area and east and south-east Asia, the publications of foreign governments and international organisations, and works in the social sciences, particularly in political theory and economics.

Patent Office Library. The Library of the Commonwealth Patent Office, Canberra, contains approximately 10,850 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design, and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are more than 9,670,000. Indexes include a microfilm of a classified index to 3,000,000 U.S.A. patents and translations of abstracts of U.S.S.R. patents.

Commonwealth Archives Office. In 1943, following a report by an Inter-departmental Committee, the Prime Minister directed the formation of a War Archives Committee to arrange for the preservation of war records. This Committee recognised that war archives could not be separated from peace-time archives, and in 1946 the name was changed to the Commonwealth Archives Committee. In 1952 the National Library became the sole Archival Authority for the Commonwealth and the Chief Archives Officer became the Executive Officer for the Committee. In March 1961, in accordance with a recommendation of the National Library Inquiry Committee, the Archives Division of the National Library was reconstituted as the Commonwealth Archives Office within the Prime Minister's Department. The Archives Office is primarily a central agency for the control of those records created by the Commonwealth Government which are no longer required for frequent use in the day-to-day business of government. This function is carried out through the following three basic activities.

Control of destruction. No Commonwealth records may be destroyed without the concurrence of the Chief Archivist whose responsibility it is to safeguard reference interests other than those of the department which compiled the records. This concurrence is given as far as practicable through continuing disposal authorities which enable Commonwealth departments to destroy certain routine classes of records automatically, but records not covered by such continuing authorities are checked before destruction is authorised.

Provision of accommodation. Any records which are no longer in active use but which are considered, either by the originating department or by the Archives Office, to warrant preservation, either permanently or for a further period, may be transferred to an archives repository. While in archival custody they are arranged and described so that the best use can be made of them.

Provision of information. Records in the custody of the Archives Office are available for use by the depositing and other departments of the Commonwealth Public Service. The Office also provides departments with a service for the provision of information from the records in its custody.

As a complementary function the Office also provides a service to persons engaged in academic and other forms of research. The headquarters of the Commonwealth Archives Office is in Canberra and there are branches in Sydney, Melbourne, Brisbane, Adelaide, and Perth.

Commonwealth Scientific and Industrial Research Organization. The library holdings of the Organization cover the pure and applied sciences. In addition to the Central Library in East Melbourne, each of the Divisions and Sections has a specialised collection covering such subjects as food preservation, forest products, chemistry, physics, animal health, and fisheries. The collections are particularly strong in the publications of overseas scientific and technical research institutions, with many of which extensive exchange arrangements have been made.

The Central Library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries and is responsible for the following publications: *Scientific Serials in Australian Libraries; Australian Science Index*, an index of articles published in Australian scientific and technical periodicals; a *Directory of Scientific and Technical Research Centres in Australia;* and *C.S.I.R.O. Abstracts*, which include abstracts of papers published by C.S.I.R.O. officers, C.S.I.R.O. translations, translations available from other Australian organisations, and additions to the British Commonwealth Index of Scientific Translations. The larger libraries in the Organisation have photocopying facilities which, while normally for internal use, provide a service for the public when a publication is not held elsewhere in Australia.

The Australian War Memorial Library. In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in the 1914–18 and 1939–45 Wars, together with collections covering the war in Korea, 1950–53, and earlier wars in which Australian troops participated—Sudan, 1885; South Africa, 1899–1902; and the Boxer Rebellion in China, 1900–01. Books, periodicals and other records covering contemporary trends and events in the fields of military history and military science are constantly being added.

The printed records section contains approximately 70,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings of war leaders, personalities and events, war posters, and postage stamps. Many personal collections by distinguished soldiers and historical documents relating to the wars have also been placed in the Memorial's custody for preservation. Written records comprise correspondence files of headquarters and units of both World Wars, and the original war diaries compiled from day to day by each unit during its service. The collection of official war photographs covering the 1914–18, 1939–45 and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war. Facilities for public research are not yet fully developed, but requests for information are met where practicable.

Other Commonwealth Government libraries. Most Commonwealth authorities have specialised collections in their own fields and in addition draw largely on the National Library.

Northern Territory Library Service. The Northern Territory Library Service maintains five centres in the Territory. At 30 June 1966 stocks totalled 52,371 volumes which were held at the following centres: Darwin, 24,035; Nightcliff, 3,829; Alice Springs, 16,298; Tennant Creek, 4,405; Katherine, 3,804.

State libraries

State Public Libraries. In each of the capital cities there is a well-equipped public library, the libraries in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere in the world. The following paragraphs describe these libraries and other library services in each State.

New South Wales. The Free Library Movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the Library Act, 1939–1959, which was fully proclaimed as from 1 January 1944. At 30 June 1966, 173 councils had established libraries in terms of the Library Act. During 1966 they spent on their libraries $4,042,694, including $1,055,712 received in subsidy. There are 225 libraries, of which 66 are in the metropolitan area and 159 in the country. There are also 23 bookmobiles, of which 2 are in Sydney, 7 in the suburbs of Sydney, and 14 in country municipalities and shires. These libraries contain 3,296,288 volumes.

New South Wales departmental libraries are staffed by officers attached for duty from the State Library, which also provides a central cataloguing service for municipal and shire libraries constituted under the 1939–1959 Act. The State Library maintains an adult education section servicing adult education activities for the universities of Sydney and New England and the Workers' Educational Association.

The Circulation Department forwards books on loan to municipal and shire libraries and to individual borrowers. With the transfer of the School Box Service to the School Library Service of the Department of Education in 1965, 42,120 books were written off stock. The School Box Service had been operated as a service to country public schools by the Circulation Department since 1920. The total stock of the Department thus decreased to 63,581 volumes, all of which are now in the Reference Section. During 1965–66, 4,402 books were lent to public libraries and institutions, many of them in country areas, and 33,208 to individual borrowers.

The State Library, known as the Public Library of New South Wales, includes a general reference department of 518,469 volumes, together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixson Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Mitchell Library, with more than 60,000 volumes and pamphlets and 300 paintings, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of $140,000. In 1966 there were 216,980 volumes in the library, in addition to valuable manuscripts, maps and other material. In 1929 Sir William Dixson gave a collection of historical pictures then valued at $50,000. These were subsequently added to and at his death in 1952 Sir William bequeathed the whole of his collection of books, manuscripts, pictures, and other material, together with an endowment of more than $226,000, mainly for the printing or reprinting of historical documents relating to Australia and the Pacific. The total number of volumes in the State Library now exceeds 844,000, apart from manuscripts, historical pictures and other material. The maintenance and control of the ordinary lending branch of the Public Library were transferred in 1908 to the Sydney Municipal Council to become the City of Sydney Public Library. The State Library, which had previously been the repository for State archives, transferred this responsibility to an Archives Authority in June 1961. The Authority consists of nine members, of whom the Trustees of the Public Library have a right to nominate one.

Other important libraries in New South Wales are: Teachers' Colleges, 294,741 volumes; the City of Sydney Public Library, 264,291; Railway Institute, 170,100; Technical Education Branch, 195,683; Australian Museum, 35,014; Government Transport Institute, 28,743; New South Wales Teachers' Federation Library, 23,000; Workers' Educational Association, 14,400; and the Library at the National Herbarium, 10,766 volumes. At 30 June 1966 the Parliamentary Library contained 157,821 volumes.

Victoria. The modern movement in municipal library service dates from the inception of the Free Library Service Board in 1947. The Free Library Service Board was a State Government instrumentality which planned, encouraged and subsidised the development of municipal library services. Under the *Library Council of Victoria Act* 1965, the control of the Board passed to the Library Council of Victoria and in 1966 its office was redesignated the Library Services Division of the Library Council.

In 1967, 138 Councils, representing 2,569,000 Victorians, shared Government library grants amounting to $1,120,000. Of this amount, $1,042,000 was direct municipal library subsidy. With the addition of expenditure from these Councils' own funds the total expenditure on municipal library services for 1966–67 will be nearly $2,462,000, representing an average expenditure of approximately 96 cents per head of the population served. In 1966 half a million borrowers used their free library services, now totalling 1,886,000 books, to the extent of almost 11 million issues.

Particularly in the country, service has been developed by means of regional libraries. These services, of which there are 18 at present, comprising a total of 76 councils, consist of groups of councils which pool their resources, book-stocks and trained staff. A development since 1962 has been the formation of three Metropolitan Regional Library Services. The Victorian Government provides an Establishment and Regional Library Development Grant of $50,000 per annum. In 1967 this was increased by $10,000.

There are 8 bookmobile services operating in Victoria, 5 in country regions and 3 in the metropolitan area.

The State Library of Victoria was established in 1856. It is controlled by the Library Council of Victoria and receives its finance from the State Government. The reference collections now total about 840,000 items, and the lending and travelling libraries have another 185,000 volumes. In addition, the library files 4,500 current periodicals, about 2,000 government publications from Australia and overseas, and 500 newspapers, in all about 50,000 volumes. Special collections include the J. K. Moir Collection of Australiana, the M. V. Anderson Chess Collection, and the Green and Brodie Shipping Collections. The Victorian Historical Collection contains pictures, drawings, prints, and objects of historical interest. The Archives Division is responsible for the preservation of government records.

Queensland. The Library Board of Queensland was established in 1945 under the provisions of '*The Libraries Act of* 1943'. Its duty is to attain the fullest co-operation and improvement of the library facilities of the State, with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally. The Board consists of six members including the State Librarian as *ex officio* member and secretary. A general function of the Board is to ensure that the fullest co-operation exists with the Department of Education, the University of Queensland, local bodies, and other bodies having for their object the encouragement of education, literature and the arts and sciences. A specific function of the Board is the control and management of the Public Library of Queensland. Its policy is to build up the main collection of the Library as the State's reference centre.

The Country Extension Service, which is administered as a department of the Public Library, lends books of non-fiction to adults and children residing outside the metropolitan area and to municipal libraries in areas of low population.

The Oxley Memorial Library, established in 1923, has been administered as a department of the Public Library since 1946, but the collection has been kept separate. It contains books, manuscripts, pamphlets, and other graphic material relating to the history and literature of Australia, and of Queensland in particular, and provides facilities for research students in Queensland literature and history.

In 1958 the section of the Libraries Act dealing with the preservation of public records was proclaimed, and in 1959 an Archives Section of the Public Library was instituted and an archivist appointed.

The Library Board staffs the libraries of the Teachers' Colleges and the Queensland Institute of Technology as well as the libraries of ten government departments, of which the largest is the Department of Primary Industries. The work is co-ordinated by an officer-in-charge, who also gives assistance and advice to independently staffed departmental libraries.

Since 1948 a course in librarianship has been held annually at the Public Library for the purpose of preparing trainees for the examinations of the Library Association of Australia, up to 1961 for its Preliminary Examination, and from 1962 for subjects 1 to 3 of its re-organised Registration Examination. In 1959 a course covering some subjects of the Association's Registration Examination was inaugurated at the Central Technical College, Brisbane.

The holdings of the Public Library of Queensland and its extension services in 1965–66 were: main reference collection, 175,337 volumes and 10,421 maps and pamphlets; Country Extension Service, 85,890 volumes; Oxley Memorial Library, 24,428 volumes and 23,922 maps, pamphlets and miscellaneous items.

Local authorities are empowered by the Libraries Act to establish and conduct library services as a function of local government. The Board encourages local authorities to use these powers. In 1965–66, 76 local authorities were conducting 130 library services. The Brisbane City Council has established 18 of these libraries. There were 105 libraries in Queensland free to adults. To help overcome the problems of a large area and sparse population, various local authorities provide library services on a regional basis. By 30 June 1965, 4 regional library services had been established; the South Western (7 shires), the Central Western (8 shires), the North Western (10 shires), and the Central Highlands (5 shires), with headquarters at Charleville, Barcaldine, Mt Isa, and Emerald respectively. During 1965–66 the Board received a grant of $514,102 from consolidated revenue to finance the activities of the Public Library and to pay subsidies to local bodies of 50 per cent of endowable expenditure on books and the acquisition or improvement of library buildings and equipment. Subsidies were paid to 4 regional library service boards, 53 local authorities and 37 other bodies.

The library of the Parliament of Queensland was established in 1860. At 30 June 1966 the library held 98,000 books and pamphlets, consisting of official publications and books devoted largely to history, the social sciences, biography, and literature.

'*The Libraries Act Amendment Act of* 1949' provides for the Public Library and the Parliamentary Library each to receive a copy of all books, pamphlets, maps, and other printed material published in Queensland.

South Australia. In the reference department of the Public Library of South Australia there are about 235,700 volumes, most of which may be borrowed. Approximately 5,000 periodicals are filed and the collection of newspapers includes every newspaper printed in South Australia. There are 46,800 volumes in the lending department available to persons living in the metropolitan area, and the country lending service has 301,000 volumes, of which more than one-third are suitable for children. The library has an active programme for the publishing of facsimile editions of early Australian texts.

The Research Service specialises in scientific and technical inquiries and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues.

The library of the Parliament of South Australia held approximately 60,000 volumes at 31 December 1966.

There are 24 local public libraries in South Australia provided by 18 local government authorities. The libraries are subsidised on a $1 for $1 basis by the State Government. The Libraries Board of South Australia, through the Public Library of South Australia, provides various central services. Book-stocks are pooled in the Public Library of South Australia and are interchanged between the libraries.

At the end of June 1966 these local public libraries contained 178,142 books. There were 108,911 registered borrowers. During 1965–66, 1,457,656 books were lent.

Western Australia. In 1955 the Library Board of Western Australia was made responsible for all public library services throughout the State to which the State Government contributes funds. The Board has the following major functions: to encourage local authorities throughout the State to establish public libraries and to provide as a State subsidy all books and bibliographical services necessary for such libraries when established; to administer the State Reference Library; to advise the Government on all matters relating to libraries; and to provide for the training of librarians.

Local public libraries are subsidised on a $1 for $1 basis, the local authority providing accommodation and staffing, and the Board all books and related services. The Board provides at least one volume per head of the population. All non-fiction books may be made available at any public library throughout the State on request to the Board. All cataloguing is done by the Board. The first library under this scheme was opened in August 1954. By 31 December 1966, 97 libraries had been established.

The State Reference Library, established in 1887, is the reference division of the Library and Information Service of Western Australia. In addition to providing the normal facilities of a reference library for the metropolitan area, it extends its service throughout the State through local public libraries. It is divided into three divisions responsible for service in the subject fields of Western Australian history, science and technology, and the humanities.

The State Bibliographical Centre and the Central Music Library are housed in the State Reference Library building, and there is also a commercial information centre. The State archives are maintained by the State Reference Library and managed by the staff of the Battye Library. The State Reference Library is fully equipped with microfilm and photocopy apparatus.

The book-stock of the Board at 30 June 1966 was: 732,251 volumes, comprising circulation stock (including books in public libraries), 496,432 volumes; State Reference Library, 223,430 bound volumes; Central Music Library, 2,954 books on music and 9,435 scores.

The University of Western Australia, through its Adult Education Board, manages the Adult Education Library of some 17,000 volumes of general reading and fiction. Books are sent to country readers each month.

There are some 100 special libraries in government departments and industrial firms. Union catalogues of periodicals and books received in the libraries in Western Australia are maintained by the Library Board of Western Australia in the Bibliographical Centre in the State Reference Library building.

Tasmania. The Tasmanian Library Board, constituted in 1944, is responsible for administering the State Library headquarters in Hobart, for the extension of library services throughout the State, for the control of State aid to libraries, and for the State archives. The State Government provided $477,231 towards the cost of the library services in 1965–66.

Municipal libraries are assisted with the purchase of books and participate in a book exchange scheme. In 1966, 47 municipalities took part in the service, leaving only 2 outside the scheme. In Hobart the Board operates, on behalf of the City Council, the Hobart Lending Library and a bookmobile which serves metropolitan schools. From the State Library of Tasmania 2 other bookmobiles operate in 13 southern municipalities, catering for areas without library premises, for children, old people's homes, etc.

Five municipalities and the Tasmanian Library Board co-operate in a Regional Library System with headquarters at Burnie. A bookmobile serves rural areas, and small public libraries serve the larger townships of the region. The city of Launceston operates a Lending and Reference Library for the city and the neighbouring municipalities, and supplies bookmobile services to neighbouring rural areas.

The Board also operates a Reference Library in Hobart from which reference and information services are available to people throughout the State. There is also a documentary film library and a recorded music library. The Board arranges screenings of documentary films, recitals of recorded music, poetry and play readings, library weeks in country centres, exhibitions of books, photographs, etc.

At 30 June 1965 the State Library, Hobart, held 99,478 volumes in the reference branch, 83,138 volumes in the ordinary lending branch, 178,660 volumes in the country lending branch, and 140,842 in the children's branch.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during sessions.

University libraries

These libraries provide material not only for the education of graduates and undergraduates, but also for research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialised than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professorial staff.

The following table shows the volumes held, accessions during the year, and expenditure of the Australian university libraries.

UNIVERSITY LIBRARIES

University	Volumes (a)	Accessions during year (b)	Expenditure (c)
	'000	'000	$'000
Australian National	398	35	610
Sydney	988	66	812
New South Wales	302	27	628
New England	211	17	231
Newcastle	103	11	155
Macquarie	51	51	117
Melbourne	471	50	762
Monash	215	20	573
La Trobe	41	41	206
Queensland	441	36	549
Adelaide	413	30	466
Flinders	73	22	200
Western Australia	281	21	350
Tasmania	146	7	171
Total	**4,134**	**434**	**5,830**

(a) 31 July 1966. (b) Year ended 31 July 1966. (c) During year ended 31 December 1965.

Australian National University. This library consists of two main collections; the former Australian National University Library, founded in 1948, which serves primarily the Institute of Advanced Studies, and the former Canberra University College Library, founded in 1938, which serves primarily the School of General Studies. At the end of 1966 the stock included 76,000 volumes in oriental languages. The collection serving the Institute of Advanced Studies (215,000 volumes) specialises in the fields of the physical and medical sciences, excluding clinical works. The R. G. Menzies Building of the University Library, which was opened by Queen Elizabeth II in March 1963, houses the administrative, cataloguing, etc., departments serving the whole university as well as certain research collections of the Institute of Advanced Studies. In the social sciences the library endeavours to provide a good working collection while giving consideration to the holdings of the Commonwealth National Library. It possesses significant collections in anthropology, linguistics, mathematics, and mathematical statistics. The collection serving the School of General Studies (130,000 volumes) has been built up to meet the needs primarily of undergraduates studying arts, economics, law, oriental studies, and science.

University of Sydney. The library consists of the central collection which is known as the Fisher Library, the Law Library, the Medical Branch Library, the Burkitt Library for pre-clinical medicine, and some 49 departmental libraries. The University Library holds a total of more than one million volumes.

The first books were acquired in 1851, and shortly afterwards the library of Sydney College was added. The collection of Nichol D. Stenhouse was acquired in 1878 as the gift of Thomas Walker. In 1885 Thomas Fisher bequeathed the sum of $60,000, the income from which is used as a book fund. The Fisher Fund was matched in 1961 by establishment of the W. H. and Elizabeth M. Deane Library Fund. Perhaps the finest collection in extent and importance which has been given to the University is that of Sir Charles Nicholson. There have been numerous other benefactions, among which may be mentioned the library of Sir Francis Anderson, the W. H. Deane collection of books and manuscripts and the Dalley-Scarlett music library. In 1961 the University acquired the English literature collection of the late Hugh Macdonald, and the late Professor J. Stewart's library, an outstanding collection on archaeology and numismatics, was acquired in 1963. The Sydney University Library has an extensive collection of mediaeval manuscripts and early printed books.

University of New South Wales. The libraries in this university consist of the Central Library and a Bio-medical Library at Kensington. There is also a library at Wollongong University College and the Broken Hill Division. In December 1966 the university had 313,242 volumes in its libraries.

University of New England. The library was founded in 1938, when the New England University College was established. Sir William Dixson was its first benefactor. The library, which contains 185,000 bound volumes, is adding to its collection at the rate of approximately 20,000 volumes a year. It receives about 4,800 current periodicals annually. It is housed in a three-storied, air-conditioned building, which also makes provision for a bindery and photographic and archives division. A post-graduate and research library is planned as an extension of the present building. The library has its own lecturer in bibliography and library science, and conducts formal courses in librarianship. A multi-copy collection of 36,000 volumes for external teaching is housed in the Public Library of New South Wales in Sydney.

University of Newcastle. The library has been in existence since 1951, although it was associated with the Technical College Library until 1961. In January 1966 a major part of the library's collections were transferred to temporary premises at the new site of the university at Shortland. About one-sixth of the collections remains at the old site at Tighes Hill for the use of the departments still operating there. The library has slowly but steadily developed over the years and now has a collection of 110,000 volumes. In the vicinity of 2,500 periodicals are taken into the library stock each year as a result of both subscription and donation. There are no departmental libraries. The resources of the library are used extensively on inter-library loan in the Newcastle district, particularly by local industries. The first stage of the permanent library building is under construction and it is anticipated that it will be ready for occupation in January 1968.

Macquarie University. The library began in 1965 to acquire books and to plan for its opening in 1967. It occupied temporary quarters in North Sydney until mid-1967, when it moved into the first stage of a new air-conditioned library building, which is centrally situated on the university site at Eastwood and planned to house eventually 800,000 volumes. The library's initial purchases were restricted mainly to undergraduate level material in those schools in which students were enrolled in 1967. The library subscribes to 1,300 serials and has an audio-visual area. When the library opened in March 1967, approximately half of its total collection of 70,000 volumes had been donated by private individuals, firms and other libraries.

University of Melbourne. Early in 1854 the first allocation for books was made, but the library was housed in temporary quarters until 1959. The W. L. Baillieu Trust made available the first instalments of a $200,000 gift for building purposes, which have been followed by subsequent gifts and substantial grants from the Commonwealth and State Governments, and a new building was occupied at the beginning of 1959, the first in the university to be designed specifically for library purposes. Since 1959 the use of the library has increased fourfold, and during the academic year admissions of readers to the building average 8,000 a day. The resources of the library are also used extensively on inter-library loan by government instrumentalities, industries and other organisations throughout Australia. The University Library, including 13 branch libraries in various departments, is administered from the centrally situated Baillieu Library. The large medical branch library is specially rich in periodicals.

Monash University. The Library contains about 250,000 volumes and subscribes to some 5,500 journals. It has been decided that the library organisation will develop into four large units—the main library, a bio-medical library, a law library, and a library for the physical sciences and technology. The physical sciences and technology library has been named the Hargrave Library and was opened in December 1962. The main library, catering mainly for the humanities, was occupied in November 1963. The bio-medical library was occupied in 1966.

La Trobe University. The university was founded in December 1964 and the first books were acquired in 1965. Library activities began at 474 St Kilda Road, the temporary headquarters of the university itself. The move to the new building at the university site at Bundoora was completed in the first week of February 1967. The library is housed in a three-storey air-conditioned building which is designed to be extended horizontally in two stages by 1977. In 1967 only the top floor was occupied by the library. The ground floor and first floor were used for science teaching and office facilities which will be transferred to the science buildings in 1968. By the end of 1966, 45,000 volumes had been acquired and 1,340 serials received by gift or subscription. It is estimated that the accommodation available in 1967 will house about 100,000 volumes and 190 readers. The library will initially cater for the Schools of Humanities, Social Sciences, Biological Sciences, and Physical Sciences, containing the disciplines of English, French, history, philosophy, Spanish, economics, politics, sociology, biology, chemistry, mathematics and physics.

University of Queensland. The library was founded in 1911. There is a main library and a number of departmental libraries at St Lucia, and medical libraries at the Medical School and at teaching hospitals. The library receives more than 10,000 current periodicals. It has notable collections in geology, the history, development and culture of the Pacific region, and tropical aspects of agriculture, veterinary sciences and biological sciences. The total collection numbers some 450,000 volumes.

University of Adelaide. The main library is the Barr Smith Library which commemorates its first benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the university over $100,000 for the library. Seats are provided for 1,000 readers, including 270 in the main reading room. There are branch libraries for medicine, law and music. The South Australian branches of the Australian Medical Association, the Australian Physiotherapy Association, and the Australian Dental Association make annual contributions towards the maintenance of the medical library in return for borrowing privileges for their members. The Waite Agricultural Research Institute has a separately administered library of about 22,000 publications in agriculture. Total holdings of the university libraries at the end of 1966 were 429,000 volumes. Some 14,600 serial titles are received.

The Flinders University of South Australia. The acquisition of books for the library commenced in 1963 when the first library staff were appointed. The library occupied the first stage of its permanent building at the end of 1965, and when teaching commenced in March 1966 the collection consisted of some 60,000 volumes. Approximately 20,000 volumes are being added each year and the library receives currently about 2,300 periodical titles.

During the early development of the library emphasis is being placed on material to support the current teaching and research programmes of the university. Special attention is being paid to fields where little material is available elsewhere in Australia, for example Spanish literature.

University of Western Australia. The first full-time library staff was appointed in 1927. Provision for a permanent library building was not possible when the university moved to its present site, and space and facilities were inadequate for many years. A new four-storey building was completed at the end of 1963. The building provides facilities for microfilm readers, typewriting booths and photo-copying facilities. The University Library developed very slowly in the early years, but recently has been adding about 20,000 volumes a year to its stock. In addition to the main library there are a number of departmental libraries of which the more important are engineering, agriculture, pre-clinical, and law. There is also a medical library, in accommodation provided by the Royal Perth Hospital, for the use of the medical school.

University of Tasmania. To cater for an anticipated enrolment during 1967 of 2,600 students, the library currently has a collection of 161,490 volumes, and files 4,023 serial titles. The 1967 vote for all purposes is $97,500, of which $40,600 is allocated for books and $48,400 for serial publications and back sets. The university library collects private and business archives and has a small rare book collection.

Children's libraries and school libraries

New South Wales. Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents and citizens associations and partly by departmental subsidy. Secondary and central schools, and an increasing number of primary schools, have teacher librarians.

Victoria. Throughout Victoria an essential feature of libraries is the service for children; 117 municipal libraries share in a special children's library grant of $10,000, and on the staff of the Library Services Division is a professional children's librarian who supervises and advises on work with children.

The Education Department is making provision for the building of library rooms in new schools. Where accommodation is available in existing schools, library furniture is provided free of cost to the schools, and the Government subsidises the purchase of books. In June 1966, 590 schools had central libraries. The Education Department has a library service officer with a small staff to advise and assist schools in the establishment and organisation of libraries. A one-year course for the training of teacher-librarians was established at Melbourne Teachers' College in 1955. Approximately 25 teachers are trained each year.

Queensland. The Library Board of Queensland stresses to local bodies the importance of providing adequate library services for children. There are in Queensland 128 libraries free to children, of which 16 are conducted by the Brisbane City Council. The children's libraries at Rockhampton, Toowoomba and Townsville are particularly active. Country children who are not catered for locally may borrow from the Country Extension Service which possesses a separate children's collection. The purchase of books for State school libraries in Queensland is financed by school committees and parents associations, with a subsidy from the Department of Education on a $1 for $1 basis. Trainees at the teachers colleges are instructed in school library organisation and management.

South Australia. A children's library of 36,000 volumes is used by school classes and individual children living in the metropolitan area. In 1965–66, 208,200 books were lent. There is a large collection of historical children's books assembled for the use of research workers. In August 1957 a youth lending service was opened for young people from thirteen to eighteen years of age. It has a stock of 15,500 volumes.

Western Australia. The Education Department provides library services, issues of books and subsidies on library books to schools. School libraries are supplied with shelving, furniture, stationery, and library supplies. The Library Services Branch of the department provides advisory services to assist schools in all aspects of library organisation and service. It also relieves schools of the professional and routine tasks of book preparation by providing a central cataloguing service for both new books and those previously uncatalogued in school libraries, a central processing service to cover books in plastic and prepare them for use, and a library book repair and binding service. Book selection in schools is assisted by a model library and by lists of recommended books.

The teachers colleges provide courses in school library organisation and service and have developed college libraries directed by qualified librarians. At the Perth Technical College part-time courses are provided on the syllabus for the examinations of the Library Association of Australia and are attended by many school librarians. The Perth Technical College and technical schools are equipped with libraries, and an allocation of funds is provided annually to each school and college department for the purchase of books and periodicals. Books for technical schools other than Perth Technical College are centrally ordered, catalogued and processed by the Library Services Branch.

All high schools are provided with library accommodation and furniture. New high schools have been provided with a main library, reading room, study room and librarian's office. High school libraries are staffed by one or two trained school librarians according to the size of the school. New high schools are issued with books to a value of $1,000 in each of their first three years. All high schools receive annually an issue of books, as well as being entitled to a subsidy for the purchase of library books. A number of primary schools have organised school libraries in rooms which have become available, or in premises provided by the parents and citizens associations. Annual issues of books are made to all primary schools, varying according to the size of the school, and a subsidy is provided for the purchase of library books. The Charles Hadley Travelling Library provides 400 boxes of books which are circulated to all small schools, mission schools and special classes. Children who are unable to attend school, mainly those in isolated areas, are provided with books from the Correspondence School's library.

Tasmania. The Lady Clark Memorial Children's Libraries, with headquarters at the State Library, Hobart, aim at serving all children in Tasmania. At 30 June 1966, 164 children's libraries and depots had been established.

The Education Department provides library quarters in all high schools and in some of the larger primary schools. The purchase of books is financed by parents associations and by departmental subsidies. Teacher-librarians are appointed in high schools. The Schools Library Service issues loan collections of books to schools and gives advice on the setting up of school libraries.

Special libraries

Before the 1939–45 War the number of special libraries, apart from those maintained by government departments, was small, but during recent years many manufacturing, commercial, research and other firms, as well as statutory bodies, have found it necessary to establish special libraries to serve their staff. These libraries, which are most numerous in Sydney and Melbourne, are being increasingly administered by trained librarians.

Museums and art galleries

In 1964 an annual collection of statistics on a uniform basis was commenced from Australian museums and art galleries. The following paragraphs provide summarised results of the collection and refer individually to the more important museums and art galleries.

A museum or art gallery is considered to be a building, group of buildings or parts of buildings, managed as a unit and intended predominantly for the permanent display of objects of interest (museum) or objects of art (art galleries) to the general public. Institutions displaying live exhibits are excluded (the more important of these are mentioned on pages 643–4), as are buildings used for temporary displays (exhibitions, commercial galleries exhibiting only for sale) without a permanent stock of exhibits; permanent exhibitions which are ancillary to other activities, such as exhibits at council chambers, libraries. hotels, and other commercial enterprises providing services to tourists and sightseers; collections which are not readily accessible to the general public, such as university collections for the use of students and research workers; and historic homes, etc. not specifically intended for the permanent display of objects of interest (i.e. where the building itself and its normal fittings are essentially on display).

Museums and art galleries, 1966

The following table classifies by States and Territories and by ownership the institutions in Australia which have been identified in 1966 as museums and art galleries (branches of museums and art galleries are not shown separately).

MUSEUMS AND ART GALLERIES: STATES AND A.C.T., AND OWNERSHIP, 1966

(Number)

	Major institutions			Other institutions			All institutions
	Museums	Art galleries	Mixed institutions	Museums	Art galleries	Mixed institutions	
State or Territory—							
New South Wales	3	1	..	4	2	2	12
Victoria	2	1	..	2	5	2	12
Queensland	1	1	..	..	3	..	5
South Australia	1	1	..	6	1	..	9
Western Australia	1	1	..	1	1	..	4
Tasmania	..	..	2	..	..	..	2
Northern Territory	..	..	..	..	..	..	..
Australian Capital Territory	1	..	1	..	..	..	2
Ownership—							
Commonwealth Government	1	..	1	..	..	..	2
State Governments	8	5	1	2	..	1	17
Municipal authorities	..	..	1	4	5	2	12
Private trusts	..	..	..	2	5	1	8
Universities	..	..	..	2	1	..	3
Private	..	..	..	3	1	..	4
Total museums and art galleries	**9**	**5**	**3**	**13**	**12**	**4**	**46**

The following table sets out particulars of staff, display areas and expenditure for all museums and art galleries identified in 1966.

MUSEUMS AND ART GALLERIES: STAFF, DISPLAY AREA, ATTENDANCE AND EXPENDITURE, STATES AND A.C.T., 1966

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Total staff—									
Museums		160	125	32	82	43	..	14	456
Art galleries		40	62	25	27	24	..	..	178
Mixed institutions		11	8	..	..	..	48	69	136
All institutions		*211*	*195*	*57*	*109*	*67*	*48*	*83*	*770*
Display area used—									
Museums	'000 sq. ft	105	70	28	53	19	..	9	284
Art galleries	" " "	49	83	12	29	12	..	..	185
Mixed institutions	" " "	13	10	..	..	..	65	80	169
All institutions	" " "	*167*	*164*	*40*	*82*	*31*	*65*	*89*	*639*
Estimated attendance during year—									
Museums	'000	697	840	122	251	135	..	174	2,220
Art galleries	"	352	485	73	108	81	..	..	1,098
Mixed institutions	"	70	31	..	..	..	123	523	747
All institutions	"	*1,119*	*1,356*	*195*	*359*	*216*	*123*	*697*	*4,065*
Estimated expenditure during year(a)—									
Museums	$,000	523	316	96	195	174	..	45	1,348
Art galleries	"	80	293	47	110	94	..	..	625
Mixed institutions	"	30	287	..	..	..	154	275	746
All institutions	"	*633*	*896*	*143*	*305*	*268*	*154*	*320*	*2,719*

(a) Excludes funds not controlled by the institution.

The following table gives figures for staff, display area, etc., for each of the seventeen institutions identified in 1966 as major because of the size of their exhibits, their popularity and the extent of the information and investigation services they provide.

MUSEUMS AND ART GALLERIES, MAJOR INSTITUTIONS: OWNERSHIP, STAFF, DISPLAY AREA, ATTENDANCE, EXPENDITURE, ETC., 1966

	Australian War Memorial, Canberra	Institute of Anatomy, Canberra	Australian Museum, Sydney	Museum of Applied Arts and Sciences, Sydney	Geological and Mining Museum, Sydney	Art Gallery of N.S.W., Sydney	National Museum, Melbourne	Institute of Applied Science, Melbourne	Nationa Gallery Melbourn
Ownership	Cwlth	Cwlth	State	State	State	State	State	State	State
Staff—									
Scientific, professional, teaching, preparational	9	8	25	21	5	11	43	55	22
Administrative and clerical, attendants, cleaners, other	60	6	44	28	6	20	14	9	26
Total staff	*69*	*14*	*69*	*49*	*11*	*31*	*57*	*64*	*48*
Display area used '000 sq ft	80	9	52	27	9	40	41	26	44
Annual attendance '000	523	174	382	269	36	320	(*a*) 350	478	374
Expenditure $'000	275	45	245	(*a*) 200	(*a*) 64	55	175	129	206
Number of lectures	67	..	601	5,132	(*a*) 154	135	259	934	503
Total attendance at lectures '000	2	..	34	(*a*) 152	(*a*) 5	4	11	40	26
Field-work man-days	..	..	750	104	10	..	108	25	..
Books, periodicals, etc. in library '000	83	1	35	8	..	4	n.a.	3	n.a.

	Queensland Museum, Brisbane	Queensland Art Gallery, Brisbane	South Australian Museum, Adelaide	National Gallery of South Australia, Adelaide	Western Australian Museum, Perth	Western Australian Art Gallery, Perth	Tasmanian Museum and Art Gallery, Hobart	Queen Victori Museu and Art Gallery Launceston
Ownership	State	State	State	State	State	State	State	Municip
Staff—								
Scientific, professional, teaching, preparational	10	5	37	7	13	3	11	9
Administrative and clerical, attendants, cleaners, other	22	10	21	16	25	10	13	12
Total staff	*32*	*15*	*58*	*23*	*38*	*13*	*24*	*2*
Display area used '000 sq ft	28	7	40	28	17	9	4	25
Annual attendance '000	122	68	190	59	124	72	(*a*) 60	63
Expenditure $'000	96	45	180	108	174	94	94	60
Number of lectures	102	12	94	170	320	34	n.a.	111
Total attendance at lectures '000	8	(*a*) 1	3	6	14	3	n.a.	3
Field-work man-days	171	..	910	..	350	..	30	100
Books, periodicals, etc. in library '000	37	1	25	n.a.	13	1	..	11

(*a*) Estimated.

Some descriptive detail follows in respect of the seventeen major institutions listed in the foregoing table.

Australian Capital Territory

The Australian War Memorial, Canberra. The Memorial comprises the national collection of war relics and the building in which these are preserved. The building was opened in 1941. The memorial is administered by a director responsible to a board of twelve trustees. There is a collection of 4,000 art works and a museum collection of more than 40,000 war relics, the gathering of which began on the battlefields of the 1914–18 War and was continued during the subsequent campaigns in which Australian forces have participated. The collection has been enhanced by gifts of relics from the governments of Great Britain, the sister dominions and allied countries, and also by presentations made by ex-servicemen and relatives of those who died. The collection consists of items such as tanks, aeroplanes, submarines, field-guns, boats, and the widest possible range of war trophies down to the smallest items, each relic dependent for its value on its historical background. The works of art, all by Australian artists, depict battle scenes, individual officers and men, etc., and include oil and water colour paintings, drawings, statuary, bronzes, dioramas, and mosaics. There is also a library, which is described on page 631.

The Australian Institute of Anatomy, Canberra. The Institute is described in the chapter Public Health, pages 565–6. It contains displays of biological and anatomical aspects of man and the anatomy of Australian animals. A display of Aboriginal and Melanesian artefacts from the National Ethnographic Collections is temporarily housed in the Institute.

New South Wales

The Australian Museum, Sydney. Founded in 1836, this is the oldest museum in Australia. It is administered by a director and a board of twenty-five trustees as a Government Department attached to the New South Wales Department of Education. It has fine collections of all groups of animal, including insect, fossils as well as mineral and ethnological collections, particularly in relation to Australia and the Pacific.

Museum of Applied Arts and Sciences, Sydney. This museum, with branches at Bathurst, Goulburn and Broken Hill, New South Wales, is administered by a director and a board of seven trustees appointed by the Governor of New South Wales. The museum specialises in applied arts (ceramics, glass, oriental arts, costumes, musical instruments, furniture, etc.), applied science and technology (engineering, transport, textiles, electronics, etc.), and among its special features are a Watt beam engine of 1785, No. 1 New South Wales locomotive, Lawrence Hargrave models, colour television, and a planetarium.

Geological and Mining Museum, Sydney. This museum is administered as a branch of the Department of Mines by a curator under the control of the Government Geologist. It is the only one in Australia devoted solely to geology and mining. The display contains a unique collection of ores and economic minerals from New South Wales with material from the other States and from overseas for comparison. Its most important functions are the identification of mineral and rock specimens, several thousands of which are received annually, and the supply of some 20,000 to 30,000 specimens free of charge to schools.

Art Gallery of New South Wales, Sydney. The Gallery originated in the Academy of Art founded in 1871. It is administered by a director and secretary under a board of thirteen trustees responsible to the New South Wales Minister for Education. The gallery has 7,957 exhibits, including 1,664 oils and 161 pieces of sculpture. Australian art in all aspects (except early colonial and native) and modern European painting and sculpture are featured. An Aboriginal art collection includes a unique set of large Melville Island graveposts. Assistance is provided to governments and private organisations in the design of books, coins, notes, etc., the preparation and judging of exhibitions, and the supply of research material and information.

Victoria

National Museum of Victoria, Melbourne. The museum was founded in 1854. It is administered by a director and board of seven trustees. It houses substantial collections in the fields of zoology, geology and anthropology. There is a small branch at Tidal River, Victoria.

Institute of Applied Science of Victoria, Melbourne. The Institute was founded in 1870. It is administered by a director and board of seven trustees. Its collections are concerned with aspects of application of all science subjects, but with special emphasis on transport, astronomy, public health, arms, agriculture, and electronics. A planetarium was opened in December 1965.

National Gallery of Victoria, Melbourne. The gallery is administered by a director and board of seven trustees. Its large collections of over 20,000 items feature paintings by Rembrandt, Tiepolo and the Flemish primitives, Dürer engravings, Blake drawings, and English 18th century furniture.

Queensland

Queensland Museum, Brisbane. The Museum, founded in 1855, is the State museum of natural science. It is administered by a director as a sub-department of the Queensland Department of Education. The collections are in the fields of the natural sciences, ethnology and history, and include extensive collections of fossil vertebrates.

Queensland Art Gallery, Brisbane. This gallery was established in 1895. It is administered by a director and board of thirteen trustees. The gallery especially features Australian art of all periods, British modern art, French sculpture, and French paintings from the Rubin collection. The Art Gallery has 1,790 display items, including 559 oils.

South Australia

The South Australian Museum, Adelaide. The museum is a department of the South Australian Public Service and is administered by a director and board of five trustees. It features natural science and anthropological collections. The latter refer to the Australasian and Pacific regions and include an outstanding collection of Aboriginal artefacts.

National Gallery of South Australia, Adelaide. The gallery originated in 1881. It is administered by a director and board of seven trustees. Apart from the usual art gallery collections, devoted chiefly to British and Australian works, it features a large collection of prints containing examples from European, British, Oriental, and Australian schools, and a numismatic collection which is widely regarded as the finest in Australia. It also contains the South Australian Historical collection and a small collection of weapons. It has 56,626 exhibits, including 2,084 oils and water-colours, and 12,029 engravings and prints.

Western Australia

Western Australian Museum, Perth. The museum was established in 1895. It is administered by a director and board of five trustees appointed by the Western Australian Government. The zoological collections cover all vertebrate and most invertebrate fields, particularly marine. There are collections relating to vertebrate palaeontology and meteorites, fossil invertebrates, and some fossil plants. There are extensive collections of Aboriginal artefacts and European arms and armour.

The Western Australian Art Gallery, Perth. The gallery was established in 1895 and is administered by a director and government-appointed board of five trustees. It features especially collections of Australian paintings, drawings, ceramics and sculpture, a fine collection of Australian contemporary art, and a major Henry Moore sculpture. It has collections of coins and of Western Australian stamps. Altogether there are 3,444 items, including 444 oils and 43 pieces of sculpture.

Tasmania

Tasmanian Museum and Art Gallery, Hobart. Opened in 1887, the Tasmanian Museum and Art Gallery is administered by a board of trustees. It has a branch at Zeehan, namely The West Coast Pioneers' Memorial Museum. The museum part contains zoological, anthropological and geological displays relating to Tasmania. The art displays contain an excellent holding of Tasmanian historical works.

Queen Victoria Museum and Art Gallery, Launceston. This institution, opened in 1891, is owned and administered by the Launceston City Council through a director and a sub-committee of aldermen. It has a branch at Cradle Mountain. Attention is concentrated on collections relating to the natural, biological and historical environment of Tasmania, featuring Tasmanian fauna, Aboriginal relics and historical material. The arts associated with Tasmania are represented by an excellent collection of early colonial period painting and also by a fine collection of costumes, lace and ceramics.

Other museums and art galleries

A short description of some of the twenty-nine remaining museums and art galleries is given in the following paragraphs. The institutions are grouped into those owned by the States, by municipalities and private trusts, by universities, and by private persons.

State-owned institutions. The Dixson and Mitchell Libraries (sections of the Public Library of New South Wales) have galleries in which paintings, drawings, engravings, photographs, coins and postage stamps, all related to Australian and south-west Pacific history, are exhibited. The main area of display comprises 7,051 square feet. Only a fraction of the many thousands of items can be shown. There is a geological museum, maintained by the Victorian State Mines Department, with a comprehensive collection of geological specimens. In South Australia there is a small museum of local and tourist interest—the Old Government House, Belair, displaying furniture, etc. of the colonial era.

Municipal and private trust institutions. In 1966 there were eleven institutions owned by various non-metropolitan municipalities throughout Australia. These range from the Mildura Art Centre with expenditure of more than $275,000 in 1966, to the Fred and Lucy Gould collection of 319 paintings, drawings and antiques at Toowoomba. Similar institutions are often maintained in major provincial cities by private trusts. These and the municipal institutions often exhibit artistic, historical and other items of special local interest, and as a rule there are associated with them various local societies devoted to the exploration and encouragement of the arts, local history and the like. Thus the Lionel Lindsay Art Gallery and Library at Toowoomba, Queensland, is administered by a board of trustees, originally appointed in 1959 by deed of trust.

University institutions. Most university collections, some of them comprehensive and containing unique material, are reserved essentially for the use of students and research workers, and are therefore not included as museums or art galleries. However, the John Darnell Art Gallery of the University of Queensland, originating from a bequest in 1930, the Macleay Museum of Natural History at the University of Sydney, stemming from a gift to the university in 1888, and the Nicholson Museum of Antiquities at the University of Sydney are open to the public.

Private museums and art galleries. Only four establishments of this nature are included here as museums or art galleries. All of them are in South Australia.

Botanical and zoological gardens

In addition to the zoological gardens referred to in the following paragraphs there are numerous privately owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc., dedicated for public use, which are preserved largely in their natural condition.

New South Wales

The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour, close to the heart of the city and on the site of the first farm established in 1788 by Governor Phillip. Now occupying sixty-six acres, they contain a large and varied collection of flowering plants, shrubs and trees as well as hothouses of orchids and ferns.

The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, were opened in 1916. The area is about seventy acres. The natural formation has been retained as far as practicable, with the object of displaying the animals in natural surroundings, and an aquarium has been built within the gardens. In 1965–66 admissions to the grounds were 810,685 and to the aquarium 270,464. The receipts of the zoological department of the Taronga Park Trust amounted to $439,542 in 1965–66, excluding an annual State grant of $1,620, and expenditure amounted to $430,687. Exhibits at 30 June 1966 comprised 1,276 mammals, 3,112 birds, 207 reptiles, and 795 fish.

Victoria

The main botanical gardens in the State are the Royal Botanic Gardens, an area of eighty-eight acres within one mile of the centre of the City of Melbourne, containing over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens.

The Zoological Gardens are situated in Royal Park, and contain a wide selection of animals, birds and reptiles. A wild life sanctuary is also maintained at Healesville and contains specimens of indigenous fauna.

Queensland

Botanical gardens have been established in Brisbane and in several other cities. The Brisbane Botanic Gardens were established in 1855 by the Government of New South Wales. In 1925 the Queensland Government transferred them to the Brisbane City Council. They occupy approximately forty-six acres on the banks of the Brisbane River in the central city area and are noted for their collections of palms, tropical trees and shrubs, and succulents; they contain over 7,500 plants.

South Australia

The Botanic Garden, established in 1855, was opened to the public in 1857. It contains 45 acres of tropical and sub-tropical trees, shrubs and plants, a large range of glasshouses, and a rockery with cacti and succulents. Adjoining is the Botanic Park of 75 acres, which is treated as an arboretum.

The Zoological Gardens, opened in 1883, have an area of approximately 19 acres, and contain a fine collection of animals, reptiles and birds. There were approximately 330,000 visitors in 1965–66.

Western Australia

A botanic garden for the native plants of Western Australia was officially inaugurated in March 1963, and planting of the garden began in May 1963. More than one thousand species of native plants have been established in a natural bushland setting with access by grass paths, and there is a central water garden feature. It was officially opened in October 1965. The site of 25 acres selected for garden development during the first five years is in King's Park, a reserve of almost 1,000 acres close to the centre of Perth. In June 1962 an arboretum of 35 acres was founded for the collection of native trees, and, with the exception of some rare mallees, nearly all trees native to the southern part of the State are represented.

The Zoological Gardens, which were opened in 1898 at South Perth, have an area of 46 acres and are under the control of the Acclimatisation Committee. Animals, birds and reptiles are exhibited. During the year 1965–66, 140,293 adults and 133,317 children visited the zoo.

Tasmania

The Hobart Botanical Gardens adjoining Government House on the Queen's Domain contain a fine collection of exotic trees and shrubs. They are controlled by a board appointed by the State Government, which supports the gardens by annual grants.

There is no zoo in Tasmania, but a small collection of animals and birds is maintained by the Launceston City Council at the City Park.

Northern Territory

The Darwin Botanical Gardens were established in 1873 and were planted with imported exotic plants and trees. The gardens now occupy eighty acres and feature tropical plants of both native and overseas origin. They are controlled by the Darwin City Council.

Book publishing

Australian book publishing

Statistical data relating to Australian book publishing are supplied by the National Library of Australia as part of its bibliographical responsibilities (*see* page 629). Through the deposit provisions of the *Copyright Act* 1912–1966, its overseas collection agents and its own efforts, the library receives practically all Australian publications, although not necessarily in the year of publication. Because the statistics compiled and shown hereunder are classified according to the year of publication, the figures are subject to revision as publications not yet received in the National Library come to hand.

For books published in 1961 and thereafter the method of counting conforms with international practice. Each title is counted as one unit. The figures cover all non-periodical publications (i.e. those published at irregular intervals or regularly at intervals of one year or longer) published in Australia. They refer to all publications of five pages or more and include pamphlets, new translations and re-editions. They include government publications, educational textbooks, university theses, etc., but exclude publications not available to the general public, advertising material, publications of transitory interest, off-prints, musical works, children's picture books, and maps and charts.

Number of publications

The following table shows the number of books, etc. published in Australia during the years 1962 to 1966 received by the National Library to the end of 1966.

NUMBER OF PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY AUSTRALIA, 1962 TO 1966

Received by the National Library to the end of—	Published during—				
	1962	1963	1964	1965	1966
1962	1,793	..	..	..	..
1963	2,501	1,416	..	..	..
1964	2,675	2,167	1,385	..	..
1965	2,700	2,312	1,934	2,039	..
1966	2,700	(*a*) 2,312	2,117	3,180	1,712

(*a*) A small number of 1963 publications are shown in later years.

The next table shows the 1963 to 1966 publications received up to the end of 1966, classified by subject matter.

NUMBER OF 1963 TO 1966 PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY, BY SUBJECT(*a*): AUSTRALIA, TO 1966

Subject	Published during—			
	1963	1964	1965	1966
Bibliography, libraries, general	61	42	101	64
Philosophy, psychology	17	18	23	10
Religion	79	77	110	33
Social sciences	708	775	1,207	666
Philology	33	32	43	42
Science	223	212	284	142
Technology, business	517	426	566	234
Art, amusement	110	115	116	92
Literature	*323*	*258*	*440*	*266*
Australian poetry	47	33	28	29
Australian drama	4	22	5	3
Australian fiction	180	156	235	143
Australian essays	4	4	2	3
Australian humour and miscellany	10	3	12	6
Criticisms, anthologies, school editions	45	20	137	27
Other literature	33	20	21	55
Travel, biography, history	241	162	290	163
Total	**2,312**	**2,117**	**3,180**	**1,712**

(*a*) The classification is based on the divisions of the Dewey Decimal Classification.

Commonwealth Literary Fund

In 1908 the Commonwealth Government, under Alfred Deakin, first established the Commonwealth Literary Fund. The Fund was entirely a compassionate one devoted to literary pensions for aged or infirm authors, for the families of literary men who died in poverty, and for writers who were unable for financial reasons to continue their activities.

In 1939, in an endeavour to encourage the development of Australian literature and to foster appreciation of it, the Commonwealth Government greatly enlarged the scope of the Fund. The Fund now awards fellowships each year, assists in the publication of manuscripts of high literary merit, makes annual grants for lectures in Australian literature, and awards pensions to writers who have achieved a nation-wide reputation for their work in the field of creative literature. The fellowships are awarded each year to writers who have proved their capacity in the field of creative literature, to enable them to devote their time to working on a literary project they specify. A fellowship carries a maximum value of $4,000 a year. The Fund does not seek out people on whom to bestow fellowships, but considers only those who submit applications.

The Fund also assists in the publication of manuscripts which have outstanding literary merit, but which, in the opinion of publishers, may constitute a commercial risk. This assistance takes the form of a guarantee of assistance to the publisher. The Fund does not itself enter the field of publishing, nor does it make outright grants to authors to enable them to arrange publication.

From 1940 to 1965 the Fund made grants to universities for special lectures in Australian literature. In 1940, with rare exceptions, universities ignored Australian writing, but by 1964 the majority of them were actively engaged in its study, and Australian literature had become an accepted field of university scholarship. The Commonwealth Literary Fund lectures played an important role in stimulating interest in Australian literature. At present universities may apply for a grant to enable lectures to be given on special occasions.

In 1956 the Fund initiated a scheme of lectures to the general public and to schools, mainly in country areas, with the co-operation of State adult education authorities and Education Departments. All States receive grants for this purpose. The Fund also assists certain literary magazines of recognised literary value.

The Fund is administered by a committee consisting of one representative of each of the three main political parties in the Parliament, the chairman being nominated by the Prime Minister. The committee is advised on all literary matters by an advisory board of six persons with literary qualifications.

Literature Censorship Board

In 1937 the Commonwealth Government introduced legislation to provide for a literature censorship board to advise the Minister for Customs and Excise on imported literature. At the same time an appeal censor was appointed to afford appellants an avenue of appeal which did not make expensive court proceedings necessary. The appeal censor was replaced by an appeal board in 1960. The Literature Censorship Board consists of a chairman, a deputy chairman, and four other members, while the Appeal Board is made up of a chairman and two other members.

The boards were set up to deal with that part of the problem which provides the greatest amount of controversy—restriction on books which have a real place in the field of literature. In practice, no imported publication having literary merit is prohibited without prior reference to the Literature Censorship Board. Should the Minister decide to prohibit the importation of a book on the recommendation of the Board, an appeal against the decision may be made for reference to the Literature Censorship Appeal Board. A decision to prohibit the importation of a book may be challenged through the normal processes of law. Control of indigenous matter comes under the jurisdiction of the State Governments.

Film production

Australian film production

Australia was one of the pioneers in the history of film-making, *Soldiers of the Cross*, a multi-reel story film, having been made in 1900, three years before America's *The Great Train Robbery*, which is generally considered to be the first genuine story-film. It has been claimed that *The Kelly Gang*, made in 1905–6, was the first full-length feature film produced in the world. Following the outbreak of the 1914–18 War a series of short patriotic films were produced. In 1917 the first of a successful series of rural comedies was made, featuring a family called the Hayseeds. In the same year *The Kelly Gang* was remade and the first film version of *For the Term of his Natural Life* appeared. A first film version of C. J. Dennis's *The Sentimental Bloke* was made in 1919.

The year 1920 was notable for a number of productions with an authentic Australian flavour: *On our Selection*, a first version of *Robbery Under Arms*, another remake of *The Kelly Gang*, and C. J. Dennis's *Ginger Mick*. Production continued at about the same level until the coming of sound in 1928. Altogether, approximately 255 theatrical films were produced by Australian units in the silent period (1900–1930). Lack of equipment hampered the commencement of production of sound films in Australia, but during the 1930's nearly 60 sound films were produced.

During the 1939–45 War, commercial film production combined with the Commonwealth Government in making films. Since the war, a number of British and American companies have made films in Australia. Altogether, about 131 feature films were produced in Australia between 1930 and 1966.

Australian National Film Board

The Australian National Film Board was inaugurated in April 1945, on the recommendation of a Commonwealth Government inter-departmental committee. It was attached for administrative purposes to the Department of Information. With the abolition of that Department in March 1950, administration of the Board was transferred to the News and Information Bureau, Department of the Interior.

In November 1950 the Board was reconstituted as an advisory body to the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration; and for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies, and to encourage immigration.

The constitution provides for a membership of twelve, with the Director of the News and Information Bureau as chairman and the remainder representative of Commonwealth departments, State government instrumentalities, and organisations interested in the production, distribution or utilisation of films for national publicity.

Film Division of the News and Information Bureau

Official government film production originated with the appointment in May 1913 of a cinematographer and photographer in the Department of External Affairs. A later development was the establishment, in Melbourne in 1920, of the Cinema and Photographic Branch of the Department of Commerce, and a Government film unit has existed in one form or another to the present day. Early in the 1939–45 War the newly-established Department of Information was made responsible for the operation of the Cinema Branch and for an Official War Photography Unit. When the Australian National Film Board was established in 1945, the Film Division of the Department of Information became the official film production and distribution agency for Commonwealth departments and instrumentalities. In 1950, with the closing down of the Department of Information and the transfer of its functions, the Division became the Film Division of the News and Information Bureau then set up within the Department of the Interior. The Film Division is also known as the Commonwealth Film Unit. Theatrical and television distribution in Australia, and both theatrical and non-theatrical distribution overseas, of all Film Division productions are organised by the Bureau's home office or its overseas representatives. Non-theatrical distribution in Australia is organised through the National Library, Canberra, in co-operation with State film distribution agencies.

Since 1946 the Film Division has produced films for general exhibition, as well as training and special purpose films. In 1965–66 the Film Unit produced approximately 100 reels of new films and 82 reels of foreign versions of existing films. Prints are distributed through 70 overseas embassies and diplomatic posts. While many films are released commercially in Britain, the emphasis is on distribution of educational and information films through non-theatrical circuits. Films are frequently shown on television both in Britain and continental Europe. A similar situation exists in the U.S.A., where there is wide non-theatrical distribution and considerable use of the films by television networks. In Canada the Australian High Commission handles the placement of films for non-theatrical use, while a recently completed contract with the Canadian Broadcasting Corporation has resulted in a considerable increase in the number of Australian films appearing on television in Canada. Selected films have been recorded in French, Dutch, German, Italian, Swedish, Russian, Spanish, Japanese, Malay, Thai, Danish, Greek, Portuguese, Esperanto, and Pidgin.

In addition to films made on its own initiative, the Film Division produces films under the sponsorship of, or with the co-operation of, Commonwealth departments and many other bodies such as the Australian Road Safety Council, the Snowy Mountains Hydro-electric Authority, the Australian National University, the Australian Broadcasting Commission, the Victorian State Electricity Commission, the National Capital Development Commission, the Atomic Energy Commission, the British Broadcasting Corporation, the Australian National Shipping Line, and the Institute of Aboriginal Studies.

Film censorship

Legislation. The Commonwealth Government's powers over censorship of films extend only to imported films and imported advertising matter, and stem from the Customs Act. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. Under those regulations the Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. Legislation passed by the State Governments of Victoria, Queensland, Western Australia, and Tasmania names the Commonwealth Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or not. The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising matter made in Australia.

The censorship organisation comprises a Censorship Board of seven persons and an Appeal Censor, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Appeal Censor.

Thirty-five mm films for exhibition in motion picture theatres. In 1966, 1,388 films comprising approximately 5½ million feet were censored. This represented approximately 1,030 hours screening time. Of these films, 379 originated in the United States of America ,371 in the United Kingdom, and 638* in other countries. Principal suppliers among the last mentioned were: Italy, 117; Greece, 81; France, 67; U.S.S.R., 58; Germany, 34; and Poland, 22. Included in these figures were 554 full-length feature films which constitute the main theatrical attractions. This was an increase of 119 over imports for 1965. Feature films came from: the United States of America, 140; the United Kingdom, 74; Italy, 107; Greece, 76; France, 39; U.S.S.R., 36; Germany, 11; and Sweden, 9. Twenty-four feature films were initially rejected and cuts were made from 131. Two rejected feature films were subsequently reconstructed and passed, and one was passed on appeal. There were 6 appeals, 1 against cuts, which was allowed, and 5 against rejection, of which 4 were disallowed and 1 allowed. Feature films classified as suitable for general exhibition numbered 253, and 277 were considered not suitable for children. Of the latter, 53 carried the special condition that all advertising should indicate that they were suitable only for adults. These classifications are advisory only and are designed to enable picture-goers and particularly parents to obtain a general idea of the nature of any particular film. In addition to these imported films, 166 35mm films of 174,132 feet produced in Australia were cleared. These were mainly newsreels and documentaries intended for commercial exhibition or export.

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* Includes 76 Australian-produced films.

Sixteen mm films. Excluding those imported for television use, 6,439 16mm films of approximately 4½ million feet were examined. These were films commercially produced for screening in theatrettes used by business undertakings for advertising and instructional purposes, and for screening in churches, schools and universities, and on home movies. One was rejected.

Eight mm and 9.5mm films. Approximately 103,000 feet of these small dimension type films were examined. One hundred and sixty-three films with an approximate footage of 12,000 feet were rejected.

Television films. In 1966, 7,555 films, predominantly 16mm, of approximately 9 million feet, for use on television, were censored. The number of films is not a true indication of volume because many of these were of short duration. In terms of screening time the films censored for television amounted to approximately 4,293 hours. On a footage basis the United States of America supplied 68 per cent of the total imports and the United Kingdom 31 per cent. Sixty-six television films were rejected outright and an additional 1 was classified as unsuitable for televising. Eliminations were made from 1,057. There were 24 appeals, 22 against rejection, 2 against classification, of which 9 were allowed and 15 disallowed.

Foreign language films. Countries other than the United Kingdom and the United States of America supplied 562 of the 35mm films imported for theatrical exhibition, of which 340 were feature films. Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary and in some cases English 'dubbed' dialogue. Of 6,439 16mm commercial films censored, 1,465 originated from non-English speaking countries. The chief supplying countries were: France, 286; Germany, 235; Japan, 167; Poland, 103; Holland, 81; Switzerland, 50; Sweden, 48; Italy, 42; China, 33; U.S.S.R., 32.

Export of films. The quantity of films exported for the year was approximately 2.5 million feet, consisting mainly of newsreels, advertising films and documentaries. This footage included in many cases several prints of the one film. It also included large quantities of exposed negatives sent overseas for processing.

Arts Council of Australia

Patterned on the Council for the Encouragement of Music and Arts which operated in the United Kingdom during the Second World War, an Australian organisation was brought into being in 1943. In 1945 it became The Arts Council of Australia. Originating in New South Wales, Divisions are active now in the Australian Capital Territory, New South Wales, Queensland, South Australia, and Tasmania. A Federal Council was formed in 1964. New South Wales has a country branch network of over fifty centres. Rapid development in Queensland has resulted in the formation of over twenty-six branches.

The Arts Council receives State Government grants through the Departments of Education in New South Wales, Queensland and South Australia. From 1963 to 1966 substantial contributions were received from a private organisation. Some activities of the Council are supported financially by non-metropolitan local government bodies, and grants were made by the Gulbenkian Foundation in 1964 to 1966 to help in re-establishing the Federal Council. The New South Wales Division is a member of the Adult Education Advisory Board in that State, representing the 'live art' section of adult education. The Tasmanian Division is represented on, and works closely with, the Adult Education Board of that State.

Activities of the Arts Council are directed towards decentralisation of the arts for the benefit of country centres and metropolitan and country schools. It is greatly concerned with taking the arts to children as a basic cultural development. Tours of high standard companies in opera, ballet, drama, puppets, etc. are operating throughout the year. The Young Elizabethan Players Company was formed jointly by the Arts Council and the Australian Elizabethan Theatre Trust in 1958 to take Shakespeare to schools in New South Wales and Queensland. This has now been replaced by the Young Tote Company sponsored by the Arts Council and the University of New South Wales Drama Foundation. The Council handles a wide range of art exhibitions, both for city and country areas. Summer schools for drama, painting, pottery, music, and other arts are an established annual feature of the work of the New South Wales and Queensland Divisions.

Yearly drama festivals are conducted for the Little Theatre movement. In 1963 and again in 1965 the New South Wales Division sponsored the first arts festivals for Sydney (North Side Arts Festival), with a wide range of cultural activities concentrated on the north side of Sydney Harbour. The festival is now a biennial event with the third festival being planned for August 1967.

Australian Elizabethan Theatre Trust

Inaugurated in 1954 to commemorate the first visit to the Commonwealth of Her Majesty the Queen, the Australian Elizabethan Theatre Trust has since presented drama, opera, ballet and puppetry throughout the Commonwealth. The Trust receives annual grants from the Commonwealth Government, the State Governments and city councils. Its income also includes subscriptions from members and donations from business houses.

In the field of drama it has presented, *inter alia*, the works of Australian playwrights, including plays which were subsequently presented overseas. The Elizabethan Trust Opera Company has given seasons of opera and has presented overseas guest artists, conductors and producers. From 1956 to the end of 1966, more than 1,200 performances of opera have been given by the Trust Opera Company in all States and the Australian Capital Territory. Twenty-eight operas have been the repertoire in this period. The Australian Ballet, which commenced its inaugural season in November 1962, has visited all mainland capitals and New Zealand and presented world premiere productions of three commissioned ballets during 1964. The Commonwealth Government gave financial assistance for the Ballet to represent Australia at the Commonwealth Festival of Arts in Britain in 1965. The company also danced at Baalbek, Nice, Paris, Berlin, Copenhagen, and Honolulu. It will tour New Zealand, Canada and major Latin American cities during 1967. The Trust has also been associated with commercial managements in the presentation of overseas attractions and large-scale musicals.

In 1965 the Trust and Arts Council of Australia jointly formed the Marionette Theatre of Australia to promote puppetry, and one puppet company with sponsorship from the Department of External Affairs began a twelve-nation tour of Asia late in 1966.

Country areas have been visited by Trust companies presenting opera, drama, ballet, and puppetry, in association with the Council of Adult Education in Victoria and the Arts Council of Australia. During 1967 five special companies will present Shakespeare and other curricular plays for schools in all States, this being an extension of similar work undertaken annually since 1958.

In Victoria the Trust is associated with the University of Melbourne in the Union Theatre Repertory Company. It is also associated with the University of New South Wales Drama Foundation in the Old Tote Theatre Company. The corresponding activity in Adelaide, the South Australian Theatre Company, was introduced by the Trust in 1965. Assistance is given to the Adelaide Festival of Arts, the Festival of Perth, the Perth Playhouse, the National Theatre and Fine Arts Society of Tasmania, and other companies. From a special commissioning fund the Trust commissions theatrical works in all major forms from Australian creative artists.

An important activity of the Trust is its association with the University of New South Wales and the Australian Broadcasting Commission in maintaining the National Institute of Dramatic Art, which they jointly established. This provides a training ground for young Australian actors, producers and technicians. Performing a similar function for selected ballet students, the Australian Ballet School is maintained by the Trust in Melbourne.

The Australian Council of National Trusts

The Australian National Trusts were founded to further the general objectives of preservation and conservation of lands, places, buildings, works, and articles which are of national importance by reason of educational, historic, architectural, artistic, scientific, cultural, or other special interest, and places of natural beauty, including conservation of their flora and fauna.

The first Australian National Trust, the National Trust of Australia (New South Wales), was formed in 1945. Since then National Trusts have been formed in each of the other States. The Trusts in New South Wales, Queensland, South Australia, and Western Australia have statutory authority, and those in Victoria and Tasmania are incorporated under the Companies Acts of their respective States. The Australian Council of National Trusts, which was incorporated in 1965 to co-ordinate the activities of the State National Trusts and represent them at the federal level and internationally, has associations with the National Trusts in Great Britain and the United States of America.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout the Commonwealth is approximately 18,000. The Trusts are financed by members' subscriptions, the sponsorship of commercial and industrial organisations, the State Governments, and the Commonwealth Government. A total of approximately $40,000 was received from entrance fees to National Trust properties throughout Australia during 1966–67.

The number of properties owned or controlled by the Trusts exceeds fifty. These include houses, natural reserves, a garden, a powder magazine, a police station, and a paddler streamer. About thirty other buildings have been classified by the National Trusts as being of outstanding interest, but are not owned or controlled by the Trusts. The Tasmanian Government has agreed to make available to the National Trust of Australia (Tasmania) a total of $60,000 over a period of five years as a contribution towards the restoration of Clavendon, a country mansion near Evandale.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 for the purpose of securing portraits of distinguished Australians who had taken an active part in Federation. Later the Committee decided to obtain portraits of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, and other notable Australians. In addition the Committee may commission, and has in fact commissioned, paintings recording special events connected with the Commonwealth Parliament.

The Committee comprises the Prime Minister (Chairman), the President of the Senate, the Speaker of the House of Representatives, the Vice-President of the Executive Council, the Leader of the Opposition, and the Leader of the Opposition in the Senate. An Art Advisory Board, comprising a group of artists, was established in 1912 to assist the Committee by advising on works of art to be commissioned by the Committee.

Commonwealth Art Advisory Board

Since its beginning in 1912 the Art Advisory Board has always consisted of artists. At present there are five members. As well as assisting the Historic Memorials Committee the Board also advises the Government on the purchase of works of art for inclusion in the National Collection. In 1966–67, $50,000 was provided for this purpose. The National Collection now contains over 1,200 works of art.

The Board, on behalf of the Government, also organises and finances exhibitions of Australian art in overseas countries. In addition, it financially assists the showing in State Art Galleries of major exhibitions from abroad or assembled by one or more State Art Galleries. In 1966–67, $12,000 was provided to meet the costs involved in these exhibitions.

SCIENTIFIC RESEARCH

A special article on Science and Technology in Australia, prepared by the Commonwealth Scientific and Industrial Research Organization of Australia, wasi ncluded in Year Book No. 49 (*see* page 781).

Outline of Research in Australia

Scientific research in Australia prior to the 1939-45 War

Interest in science goes back to the beginning of Australian history. Captain James Cook discovered the east coast of Australia when returning from a scientific expedition to the South Pacific, and one of his passengers was the President of the Royal Society, Sir Joseph Banks, who was the first of many naturalists to be fascinated by the unique flora and fauna of the continent. The Stone Age culture of the Aborigines drew the early attention of anthropologists. The Aboriginal boomerang was a source of interest to the Surveyor-General of New South Wales, Sir Thomas Mitchell, who attempted to apply its spinning characteristics in a 'boomerang propellor' for driving steamships.

Until the 1914–18 War Australian science rested on the individual accomplishments of a few outstanding men, working largely in isolation. Three names stand out in this period—Farrer, Hargrave and Mitchell. After years of patient work as a plant breeder, Farrer developed the first successful strain of rust-resistant wheat. Hargrave's experiments in aviation attracted world-wide attention. Mitchell, a hydraulic engineer, invented a thrust bearing which made it possible to increase greatly the motive power of ocean-going screw steamships.

During the first world war Australia followed the British example and set up, in 1916, the Commonwealth Advisory Council for Science and Industry which finally became the Commonwealth Scientific and Industrial Research Organization (C.S.I.R.O.). The Munitions Supply Laboratories formed in 1916 under the Ministry of Defence provided scientific services and undertook development tasks related to the supply of military material. Between the two world wars most of the systematic research done in Australia was carried out in the Council's laboratories. A little was done by some State departments of agriculture, but very little in the universities, which had not yet come to be regarded as research centres. Many of the most able Australian scientists were attracted to posts abroad.

Scientific research during and following the 1939-45 War

The situation changed with the onset of the 1939–45 War and the economic expansion which followed it. Until 1939 the activities of the Council for Scientific and Industrial Research had been concentrated in the biological sciences, stimulated by the needs of primary industry. With the war C.S.I.R.'s work expanded greatly and spread into the physical sciences, with particular attention to the technical problems of industrial production. Many products previously imported, such as drugs and precision instruments, had to be manufactured locally, and much research and developmental work was necessary before this could be done. The work was carried out by C.S.I.R., by the Department of Supply, by university science departments, and by industrial firms. These wartime activities had permanent effects, particularly in the universities and in C.S.I.R.

As the following paragraphs indicate, Australian research continued to expand after the war, with the Commonwealth Government taking a significant role both in its own research activities and in furthering research in general. The establishment in December 1966 of the Commonwealth Department of Education and Science indicates the importance placed on research by the Federal authorities. There is no section of non-government research (universities, independent research institutions, industrial research, and individual research, workers) for which Government support is not now provided, although some of the schemes are as yet in their infancy.

Australian National University and other university research

In 1946 the Commonwealth Government established the Australian National University, whose statutory functions required it to 'encourage and provide facilities for post-graduate research and study, both generally and in relation to subjects of national importance to Australia'. The University's Institute of Advanced Studies is devoted to research and post-graduate training. The Institute comprises the John Curtin School of Medical Research and the Research Schools of Physical Sciences, Social Sciences, Pacific Studies, and Chemistry. The research activities of a teaching university are carried out in the University's School of General Studies. The growth of the National University, with its major emphasis on research and post-graduate training, introduced a new influence on the university scene which, apart from its own research activities, has provided an important stimulus, indirectly, for the growth of research in other universities. This was made financially possible by increased grants from the Commonwealth. Until 1936 only small *ad hoc* research grants had been made to the universities. In 1936 a five-year programme was inaugurated by which $60,000 was spent annually on grants for research in the physical and biological sciences. This figure had grown to $200,000 in 1950, after which the amount was absorbed in the new system of Commonwealth grants to the States for university purposes. In 1957 the report of the Committee on Australian Universities (the Murray Report) recommended increases in research funds and drew attention to the small number of post-graduate students. A further increase was approved in 1963, following the second report of the Australian Universities Commission. In 1965 the Commonwealth established the Australian Research Grants Committee to recommend and administer grants for individual research projects, mostly in universities. In 1964 the Commonwealth Government established the Queen Elizabeth II Fellowship Scheme for post-doctoral studies in the physical or biological sciences. Ten fellowships may be awarded annually to young scientists of exceptional promise and proved capacity for original work. The fellowships, which may be awarded to Australian or United Kingdom citizens, are tenable in an Australian university or approved research institution normally for two years.

The growth of university research is reflected in the increase of post-graduate studies. The Ph.D. degree was introduced into Australia only after the second world war, and the first such award was made by the University of Melbourne in 1948. Between 1948 and 1966 inclusive more than 1,900 Ph.D.'s were awarded in Australian universities. Some 600 higher doctoral degrees were awarded over the same period. During the year ended 31 July 1966, 336 Ph.D. degrees and 47 higher doctorates were awarded.

Research in the universities is mostly of a 'pure' or 'fundamental' character, although universities have also concerned themselves with 'applied' research directed to the solution of practical problems, e.g. in metallurgy, chemical industry, agriculture, and food processing. A recent example of co-operation between a university and a State government agency was the investigation carried out by the University of Melbourne into the production of town gas from the lignite of the Yallourn-Morwell deposits in Gippsland, Victoria. In 1959 the University of New South Wales established Unisearch Ltd., with the purpose of assisting by research and other suitable means the advancement, development and practical application of science to industry and commerce.

Research by Government agencies

The post-war growth of C.S.I.R.O. has proceeded in both pure and applied science. Although increasing attention is being paid to industrial problems, the major impact of C.S.I.R.O. activities is still in the field of primary production. Research on pasture improvement, for example, is estimated to have brought about a doubling of the high-quality pasture in the decade 1948–58, and the successful programme of rabbit control that followed C.S.I.R.O.'s work on myxomatosis brought about a notable increase in the numbers of sheep during the same period. Apart from C.S.I.R.O., the research activities of other Commonwealth agencies have grown substantially since the war. These include the Long Range Weapons Research Establishment set up in 1947 under an agreement with the Government of the United Kingdom and reorganised in 1955 as the Weapons Research Establishment; the Munitions Supply Laboratories, later renamed the Defence Standards Laboratories; and the C.S.I.R.O.'s Division of Aeronautics which was transferred to the Department of Supply and renamed the Aeronautical Research Laboratories. (Details of the research activities of these establishments are given in Chapter 4, Defence, pages 86–8.) In 1954 the Atomic Energy Commission decided to set up its own research establishment at Lucas Heights, near Sydney. The Royal Australian Navy also maintains an experimental laboratory. Other agencies engaged in research include the Bureau of Meteorology, the Ionospheric Prediction Service and the Bureau of Mineral Resources, Geology and Geophysics. Attached to the Commonwealth Health Department are several institutions doing research work, e.g. the Commonwealth Serum Laboratories, The School of Public Health and Tropical Medicine, The Commonwealth Acoustic Laboratories, The Bureau of Dental Standards, The Commonwealth Health Laboratories, The National Biological Standards Laboratory, and the Commonwealth X-ray and Radium Laboratory. (Further particulars of these research establishments will be found in Chapter 16, Public Health, pages 561–6.)

Research work by State Government agencies remains largely in the field of agriculture. In Queensland the great importance of the sugar industry is reflected in the work of the Bureau of Sugar Experiment Stations. Some co-ordinatian of research in agriculture is exercised through the Standing Committee on Agriculture, a joint Commonwealth-State body. In recent years some interest has also been shown in problems related to power generation, public health and water supply.

Research in industry

Research in industry has also expanded, though not at the same rate as in government agencies or the universities. Since 1955 several large firms have established their own central laboratories, and appreciable sums are being spent on research in the chemical, metals, sugar, and paper industries. To encourage this trend the Commonwealth Government has announced that it will make available a sum of $6,000,000 a year for grants to firms willing to increase their expenditure on research and development. Special tax concessions apply to expenditure on research and development.

Research in social sciences

Research in the social sciences has developed largely since the war. Before 1939 such work was virtually confined to anthropology and economics, although educational research was carried out by the State education departments and by the Australian Council for Educational Research. The latter, which was established in 1930, is now mainly supported by Commonwealth and State financial grants. The need for a much wider scale of activity was one of the motives for the establishment of the Australian National University, with a Research School of Social Sciences and a Research School of Pacific Studies. In 1952 the Social Science Research Council was established, with support from the Carnegie Corporation and the Commonwealth Government, to encourage the advancement of the social sciences, to foster research and to subsidise the publication of studies. The Institute of Applied Economic Research, supported by private funds, was set up at the University of Melbourne in December 1962; its work ranges from the economics of industry to the economics of welfare. In 1961 the Australian National University set up the New Guinea Research Unit, based in Port Moresby, which is carrying out a range of investigations into economic and social change in the Territory of Papua and New Guinea. The first election held in the Territory in 1964 was the subject of a full-scale study. In 1961 the Commonwealth established the Australian Institute of Aboriginal Studies, for the organisation and finance of research on Aboriginal matters, largely within Australian universities. The Institute's own staff is small although its annual budget currently exceeds $300,000. Despite these developments, the growth of research in the social sciences has been considerably slower than in the natural sciences. Its growth has, however, been stimulated by the establishment of new universities with strong interests in the social sciences, and by the increased demand for information about social changes arising from both public and private sources.

Distribution of Australian research work

Research in Australia has not, on the whole, been strongly concentrated in particular fields. Nevertheless, some fields have attracted more attention than others, either because of their special economic or social importance or because Australia offers particular facilities for pursuing them. The wool industry, mineral processing and the manufacture of paper from native hardwoods are examples of the former. The most notable example of the latter is radio-astronomy, for which Australia has special advantages because of its geographical position. The projected installation of one of the world's largest optical telescopes, to work in conjunction with radio-astronomical observations, will enable the exploitation of Australia's climatic advantages for optical astronomy. The combination will give Australia a premier position in this field of physical science. Hitherto the most notable achievements of Australian scientists have been in the biological sciences, as shown by the three Nobel Prizes won by Australians—Lord Florey for work on penicillin, Sir Macfarlane Burnet for immunology and Sir John Eccles for neuro-physiology.

Commonwealth Scientific and Industrial Research Organization

The Commonwealth Scientific and Industrial Research Organization (C.S.I.R.O.) is Australia's largest civil scientific body. Established as the Council for Scientific and Industrial Research (C.S.I.R.) in 1926, it was re-organised in 1949 under the Science and Industry Research Act and now has a staff of more than 5,500 including some 1,700 professional scientists. An account of the organisation and work of the former Council, and the earlier Commonwealth Institute of Science and Industry from which the Council was formed, was given in earlier issues of the Year Book. (*See* No. 14, p. 1061 and No. 37, p. 1183.)

The principal function of C.S.I.R.O. is to carry out scientific research for the primary and secondary industries of the Commonwealth and its Territories. C.S.I.R.O. does not conduct defence research, medical research or atomic energy research. The other powers and functions of C.S.I.R.O. as defined in the Science and Industry Research Act of 1949, include:

- the training of scientific research workers and the awarding of scientific research studentships and fellowships;
- the making of grants in aid of pure scientific research;
- the recognition or establishment of associations of persons engaged in any industry, for the purposes of carrying out industrial scientific research and the co-operation with, and the making of grants to, such organisations;
- the testing and standardisation of scientific apparatus and instruments and the carrying out of scientific investigation connected with standardisation;
- the collection and dissemination of information relating to scientific and technical matters;
- the publication of scientific and technical reports, periodicals and papers.

Before 1939 C.S.I.R. was engaged largely in research into problems of primary industry, in particular, plant and animal diseases and nutrition, soils, pasture improvement, insect pest control, usage of Australian timbers, food processing, and fisheries. Since 1939 an extensive programme of wool research has been developed, and research has been extended into the physical and engineering sciences with particular reference to international standards, radiophysics, various aspects of chemistry, metal physics, meteorological research, mineral processing, building research, dairy products research, engineering research, and coal utilisation.

Organisation

C.S.I.R.O. is a statutory corporation operating under its own Act of Parliament and exercising its powers subject to the regulations and the approval of the Minister for Education and Science.

The governing body of the Organization is the Executive, which consists of nine members appointed by the Governor-General. There are five full-time members, one of whom is chairman, and four part-time members. At least five of the members must possess scientific qualifications. The Executive is responsible to the Minister for the policy and the work of the Organization.

For carrying out its research work, C.S.I.R.O. is divided into four major group laboratories and a number of Divisions and Sections. The four group laboratories are the Animal Research Laboratories comprising four Divisions, the Chemical Research Laboratories comprising five Divisions, the National Standards Laboratory comprising two Divisions, and the Wool Research Laboratories comprising three Divisions. There are also seventeen independent Divisions in other research fields and an additional nine independent Sections. The Head Office is in Melbourne and associated with it are the Central Library (*see* pages 630–1), the Film Unit and the Translation Unit. Regional administrative offices are located at Brisbane, Canberra, Melbourne, and Sydney. The Organization also maintains the Australian Scientific Liaison Office in London and the Office of the Scientific Attaché in Washington.

Since the Organization's activities are Commonwealth-wide and often involve extensive field work, a number of branch laboratories and field stations have been established in various parts of Australia. The more important of these are included in the following lists.

Laboratories and Divisions

Animal Research Laboratories, consisting of the following four Divisions.

- Animal Genetics, Sydney, with a branch laboratory and field station at Rockhampton, Queensland, and field stations at Armidale and Badgery's Creek, New South Wales, and at Cunnamulla, Queensland.
- Animal Health, Melbourne, with branch laboratories in Sydney and Brisbane, and field stations at Jimboomba, Queensland, and Werribee, Victoria.
- Animal Physiology, Sydney, with a laboratory and field station at Armidale, New South Wales, and a branch laboratory in Brisbane.
- Nutritional Biochemistry, Adelaide, with a field station at O'Halloran Hill, South Australia.

Chemical Research Laboratories, Melbourne, consisting of the following six Divisions.

Applied Chemistry.
Applied Mineralogy, with branch laboratories in Perth and Sydney.
Chemical Engineering.
Chemical Physics.
Mineral Chemistry.
Microanalytical Laboratory.

National Standards Laboratory, Sydney, consisting of the following two Divisions.

Applied Physics.
Physics, with the Solar Observatory at Culgoora, New South Wales.

Wool Research Laboratories, consisting of the following three Divisions.

Protein Chemistry, Melbourne.
Textile Industry, Geelong, Victoria.
Textile Physics, Ryde, New South Wales.

The other Divisions are as follows.

Building Research, Melbourne, with an office in Port Moresby, New Guinea.
Coal Research, Sydney.
Dairy Research, Melbourne.
Entomology, Canberra, with branch laboratories in Sydney, Brisbane, Hobart, Perth, and Armidale, New South Wales, and field centres at Albury, Trangie and Wilton, New South Wales, and at Amberley, Queensland.
Fisheries and Oceanography, Cronulla, New South Wales, with branch laboratories in Brisbane, Melbourne and Perth.
Food Preservation, Sydney, with branch laboratories at Gosford, New South Wales, (operated jointly with the New South Wales Department of Agriculture), and in Brisbane and Hobart.
Forest Products, Melbourne.
Land Research, headquarters in Canberra, and field stations and laboratories at Alice Springs, Katherine and Darwin, Northern Territory, and Kununurra, Western Australia.
Mathematical Statistics, Adelaide, with officers stationed at a number of Divisions and Sections and at the University of Melbourne.
Mechanical Engineering, Melbourne.
Meteorological Physics, Melbourne.
Plant Industry, Canberra, with branch laboratories in Perth, Hobart, Brisbane, and Melbourne, and at Deniliquin and Armidale, New South Wales, field stations and experimental farms at Canberra and Deniliquin, and at Kojonup and Baker's Hill, Western Australia, and a tobacco research institute at Mareeba, Queensland.
Radiophysics, Sydney, with the Australian National Radio Astronomy Observatory at Parkes, New South Wales, and the Radio Heliograph at Culgoora, New South Wales.
Soils, Adelaide, with branch laboratories in Brisbane, Canberra, Perth, and Hobart, and Townsville, Queensland.
Tribophysics, Melbourne.
Tropical Pastures, Brisbane, with branch laboratories at Townsville and Lawes, Queensland, and field stations at Samford and Woodstock, Queensland.
Wildlife Research, Canberra, with a branch laboratory in Perth.

Sections

Computing Research, Canberra, with subsidiary installations at Adelaide, Melbourne and Sydney.
Editorial and Publications, Melbourne.
Horticultural Research, Adelaide, with a field station at Merbein, Victoria.
Irrigation Research Laboratory, Griffith, New South Wales.
Ore Dressing Investigations, Melbourne.
Physical Metallurgy, Melbourne.
Soil Mechanics, Melbourne, with a branch laboratory in Adelaide.
Upper Atmosphere, Camden, New South Wales.
Wheat Research Unit, Sydney.

The Organization's total budget for 1966–67 was nearly $42,000,000. About three-quarters of this was provided by the Commonwealth Government, while much of the remainder was provided by trust funds which have been set up by various primary producer groups. The largest of these is the Wool Research Trust Fund, but the wheat, dairy, beef cattle, leather, and tobacco industries also contribute substantial amounts. The funds are derived from a levy on produce matched by a Government contribution.

Mount Stromlo and Siding Spring Observatories

Mount Stromlo Observatory and Siding Spring Observatory are the two astronomical research stations of the Research School of Physical Sciences, Australian National University. The staff of the observatories are academic staff of the University's Institute of Advanced Studies. The permanent headquarters of the observatories is located at Mount Stromlo, together with the library, laboratories and offices of the scientific staff. The older telescopes are located on Mount Stromlo, the newer ones on Siding Spring Mountain. At Siding Spring there is a lodge to house the astronomers, permanently based at Mount Stromlo, who visit for short periods to make observations there.

The observatories constitute the principal centre of optical astronomical research in the southern hemisphere. Their research facilities are second only to the great observatories of the south-western United States, and because of their geographical latitude observations can be made on parts of the sky permanently inaccessible to northern astronomers. The functions of the observatories is to carry out original investigations (both observational and theoretical) in astronomy and astrophysics, and to provide post-graduate training for the future generation of Australian astronomers.

The direction of the researches conducted depends on the steadily widening interests of the staff and scholars as the subject of astronomy itself rapidly progresses. Areas of permanent interest to which the observatories have made important contributions include the evolution of stars and of stellar systems, the study of the Magellanic clouds and their globular star clusters, the chemical composition of the stars and the study of pulsating stars. The results of the work carried out at the observatories are published in the international scientific periodicals, principally in the *Monthly Notices of the Royal Astronomical Society* and the *Astrophysical Journal.*

Mount Stromlo Observatory is situated at 35° 19′ 16″ south latitude and 149° east longitude at an altitude of 2,560 feet. It is on the summit of a ridge of low hills in the Australian Capital Territory seven miles west of the city of Canberra. The first regular scientific work was started at this site in 1925, and the Observatory was incorporated in the Australian National University in 1957. The main instruments are 30-inch, 50-inch and 74-inch reflecting telescopes and associated spectrographs, photometers and spectral scanners.

Siding Spring Observatory was established in 1965. It is located at 31° 16′ south latitude and 148° 41′ east longitude at an altitude of 3,820 feet and occupies the summit of Siding Spring Mountain in the Warrumbungle Ranges, near Coonabarabran, New South Wales. This site has one of the best climates for astronomical research to be found anywhere in Australia—considerably better than that at Mount Stromlo. The instruments at present operating at Siding Spring Observatory include a 40-inch and a 24-inch reflector.

The observatories also operate the National Time Service whose headquarters are located at Mount Stromlo.

Australian Atomic Energy Commission

Establishment and functions of the Commission

In November 1952 a Commission of three members was appointed to control the Commonwealth's activities in relation to uranium and atomic energy, and in April 1953, upon the enactment of the *Atomic Energy Act* 1953, the Commission was established as a statutory authority with powers and functions as defined in the Act. Under amending legislation the number of Commissioners was increased to five in April 1958. The Commission is a corporate and autonomous body controlling its own service. It functions under the direction of the Minister for National Development.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. Secondly, it is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research, and generally fostering the advancement of atomic energy technology.

Uranium prospecting and mining

Production of uranium concentrate in Australia is now confined to the Rum Jungle Plant, Northern Territory. Since 1953, mining and treatment operations here have been conducted for the Commonwealth by a mining company. Mining of presently known reserves of uranium in this area was finished in 1963, but treatment of stock-piled ore has continued. Australia's own domestic requirements of uranium oxide to the end of the present century are expected to be greater than currently known reserves. Because of this the Commonwealth has continued exploration for uranium in the Rum Jungle area and has sought to encourage private producers to resume exploration.

Research

The Commission's Lucas Heights Research Establishment is Australia's atomic energy research and information centre. Its research programme is concerned with the development of nuclear power, the production and utilisation of radioisotopes, and other related fields. It is directed towards the long-term development of national resources.

The research programme over the past few years has been a technical and feasibility study of an advanced high temperature gas cooled reactor system in which the core was composed of ceramic materials—oxides of uranium, plutonium, thorium and beryllium. Carbon dioxide was considered as the coolant gas. The study has been largely concerned with fundamental research and development in the fields of reactor materials, nuclear and reactor physics, and nuclear engineering. After a detailed technical assessment of the system in 1966, the Commission concluded that it was not as attractive for base-load power stations as previously expected. The Commission has decided to taper off this study, subject to the completion of those parts of the study which are considered valuable from the point of view of scientific merit or reactor technology. The effort will be transferred largely to a technical and economic assessment of a natural uranium fuelled, heavy water moderated reactor. This type of reactor system is now considered to be most suitable for future installation in Australia for the economic production of nuclear power.

The use of radioisotopes is increasing rapidly in Australia in scientific research and development, in treatment of diseases, and in agriculture and industry generally. Most of these, especially short-lived radioisotopes which cannot be imported, are being produced in the Commission's high flux research reactor HIFAR at Lucas Heights. The A.A.E.C. is also producing the majority of cobalt 60 teletherapy sources for cancer treatment in Australia, and is exporting high activity sources to New Zealand and to Asia. The Commission is promoting research into radioisotope application and is co-operating with universities, industry and governmental bodies in making available the most up-to-date techniques involving the use of radioisotopes in every field.

Large-scale hydrological investigations using radioactive tracers have been conducted by the Commission. These have included sand tracing in Botany Bay and silt tracing in Newcastle Harbour and the Hunter River in association with maritime and development authorities.

Extensive research and development work on the technical and scientific applications of gamma radiation is also being carried out. The possibilities of radiation for such purposes as industrial sterilisation, food preservation, disinfestation of wheat and flour, and the control of fruit fly and other insect pests are being investigated. Scientists at Lucas Heights are also studying the biological effects of radiation and questions of health and safety.

The Research Establishment has developed facilities for the absolute standardisation of radioisotopes and has participated in international intercomparisons in the health and safety field. Work is directed to various aspects of radiation dosimetry, to radiation biology, and to aspects of the toxicology of beryllium compounds.

Lucas Heights is a centre of specialised equipment and information. In addition to the research reactor HIFAR, used for testing materials and producing radioisotopes, there is much other equipment unique in Australia. All these facilities are available to universities and other institutions under suitable conditions. In these endeavours the Atomic Energy Commission is working in close co-operation with the United Kingdom Atomic Energy Authority, under arrangements which give Australia access to results of British research on peaceful atomic energy uses. Results of research in Australia are in like manner available to Britain. Work in Australia, though constituting a self-contained programme, is co-ordinated with the British programme to avoid overlapping of research objectives and duplication of investigations. Australia also has bilateral arrangements with the United States, Canada and Japan, and recently accredited a diplomatic mission to the European Atomic Energy Community (Euratom). Australia is also taking part in the promotion of the peaceful uses of atomic energy through the International Atomic Energy Agency. For the year 1965–66 the Commission placed $98,000 worth of research contracts mainly within Australian universities on matters related to the research programme at Lucas Heights. Since 1954 the Commission has placed research contracts to a total value of about $1,146,000.

Considerable potential exists in Australia for possible future application of nuclear explosives for large civil engineering and mining projects. The Commission has maintained close interest in the developmental work under the United States Plowshare Program. A United States expert visited Australia in 1962, and an Australian technical mission visited the United States of America in 1963 to make a detailed examination of the use of nuclear explosives for peaceful purposes. The Commission continues to receive data and reports relating to progress in this field.

The Australian Institute of Nuclear Science and Engineering comprises the Australian Atomic Energy Commission and Australian universities. The Institute's operations are financed by membership subscriptions and a Commonwealth Government grant which amounted to $150,000 in 1965–66. The purpose of the Institute is to stimulate research and training in nuclear science and engineering within the universities and to arrange access for university research workers to the highly specialised equipment at the A.A.E.C. Research Establishment.

The Australian School of Nuclear Technology is jointly sponsored by the Commission and the University of New South Wales. Courses are now being offered in nuclear technology, production and use of radioisotopes, radiological safety, health physics, and other related topics.

Scientific societies

Royal Societies

The following table contains the latest available statistical information regarding the Royal Societies in each State.

ROYAL SOCIETIES, DECEMBER 1966

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Canberra
Year of charter	1866	1859	1884	1880	1913	1844	1930
Number of members	357	483	374	236	234	596	173
Volumes of transactions issued(*a*)	99	80	(*b*) 77	90	55	100	..
Number of books in library	32,200	30,000	68,349	23,000	6,710	35,600	..
Societies on exchange list	390	333	294	331	235	314	..

(*a*) Cumulative total. (*b*) Volumes of proceedings.

Australian Academy of Science

The Australian Academy of Science is the national institution representing science in Australia. Constituted by Royal Charter in 1954, the Academy promotes scientific knowledge and research, maintains standards of scientific endeavour and achievement in the natural sciences in Australia, and recognises outstanding contributions to the advancement of science. The Academy represents Australian science and scientists at the national and international level, organises meetings of scientists, holds symposia, and arranges for visits of scientists, from other countries to Australia.

In its functions it is comparable with the Royal Society of London and national academies of science of many other countries. Its Fellows (designated F.A.A.) are eminent in some branch of the physical or biological sciences in Australia, occupying professional positions in universities, the Commonwealth Scientific and Industrial Research Organization, other research organisations, and industry. A very few places are reserved for Fellows who have rendered conspicuous service in the cause of science. No more than six new Fellows are elected in any one year. Its present membership is about 120 Fellows.

The Academy co-ordinates Australian contributions to such co-operative ventures as the International Geophysical Year, the International Year of the Quiet Sun, and the International Biological Programme. Representation is provided at the general assemblies of the International Scientific Unions and similar bodies relating to astronomy, geophysics, geology, physics, crystallography, mathematics, biochemistry, physiology, geography, biological sciences, chemistry, Antarctic research, space research, and oceanic research.

As the Australian Academy of Science is too young a body to be financially self-sufficient, the Commonwealth Government makes annual grants of general purpose funds without affecting the autonomy of the Academy. These grants, together with substantial private benefactions, enable the Academy to continue its work. Research fellowships provided by industry are administered. The Academy is managed by an elected council comprising a president, treasurer, two secretaries and eight ordinary members who are drawn equally from the physical sciences and biological sciences. Chief administrative officer is the Executive Secretary who is not a Fellow. Its conference centre in Canberra was opened in 1959.

Australian and New Zealand Association for the Advancement of Science

This association was founded in 1887. Its headquarters are at Science House, Sydney, and congresses are held at intervals of approximately eighteen months in the various States and in New Zealand. The 40th Congress is to be held in Christchurch, New Zealand, in January 1968. Divisions of A.N.Z.A.A.S. have been formed in Western Australia and New South Wales.

Other scientific societies

The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874 for 'the cultivation and study of the science of natural history in all its branches'. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the Society to the amount of $134,000, which has been increased by investment to approximately $240,000. The objects of the Society are achieved by holding meetings, by publishing proceedings, by maintaining a library, and by offering research fellowships. The Society publishes annual volumes of the proceedings, issued in three parts, in which are printed papers read at the general meetings.

Ninety-one volumes of such proceedings have been issued and the Society exchanges with about 300 kindred institutions and universities throughout the world. The library has some 19,000 volumes. The Society offers annually to graduates of the University of Sydney, who are members of the Society and resident in New South Wales, a research fellowship (Linnean Macleay Fellowship) in various branches of natural history. The membership at the end of 1966 was 303.

The British Astronomical Society has a branch in Sydney, and in each of the States there is a branch of the Australian Medical Association.

There are more than 200 other learned societies devoted to the study of particular sciences. Some of these, including the Royal Australian Chemical Institute and the Institution of Engineers, Australia, are qualifying bodies, admission to which is by qualification only. Others, such as the Institute of Food Technologists, are open to any interested person. Some societies, such as the Australian Biochemical Society, have annual symposia of a very high standard. A great many of these bodies publish appropriate journals.

STATE GOVERNMENT EXPENDITURE ON EDUCATION, ETC.

Estimates of the expenditure by each State Government on education and related items are shown in the following tables.

Expenditure from revenue and special funds

Details shown relate to net expenditure from Consolidated Revenue and the special funds: Opera House Account, Maintenance and Repairs to Schools and Police Buildings Account and the Joint Coal Board Welfare Fund (New South Wales); Forestry Fund (Victoria); and Lotteries Commission Fund (Western Australia). Details exclude expenditure from the Commonwealth university grants, and expenditure on debt charges, pay-roll tax and superannuation payments. The cost of medical and dental inspection of school children is also excluded, as this service is considered to be more appropriately classified under public health. For these reasons, the figures do not represent total current government expenditure on education in each State. Furthermore, because of differences in organisation and accounting methods, the information shown is not on exactly the same basis for all States, and consequently comparisons of State expenditures are approximate only.

STATE NET EXPENDITURE ON EDUCATION, ETC. (*a*) FROM REVENUE AND SPECIAL FUNDS, 1961–62 TO 1965–66

($'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Total
1961–62 . .	125,974	89,264	36,016	32,534	25,016	12,722	321,526
1962–63 . .	135,176	100,352	39,852	35,612	26,922	13,920	351,834
1963–64 . .	151,262	113,288	43,894	40,318	29,940	15,340	394,042
1964–65 . .	179,218	124,935	47,265	44,468	34,137	17,382	447,405
1965–66 . .	189,456	140,030	51,826	49,621	39,257	18,572	488,762

(*a*) Includes expenditure on administration, transport of school children, teacher training, primary secondary, technical, agricultural, and university education; and expenditure of libraries, museums, etc.

State Loan Fund expenditure on educational buildings

Details in the following table show gross Loan Fund expenditure in each State on educational buildings.

STATE GROSS LOAN FUND EXPENDITURE ON EDUCATIONAL BUILDINGS 1961–62 TO 1965–66

($'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Total
1961–62 . .	32,356	28,320	6,834	11,888	5,814	3 770	88,982
1962–63 . .	32,148	28,130	8,818	11,910	5,458	4,046	90,510
1963–64 . .	35,631	30,566	11,270	9,850	5,867	4,759	97,943
1964–65 . .	40,177	30,450	9,609	11,183	7,030	4,456	102,905
1965–66 . .	48,852	31,900	8,163	11,759	7,743	4,655	113,072

CHAPTER 18

NATIONAL ACCOUNTS

NATIONAL INCOME AND EXPENDITURE

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

Estimates of national income and expenditure have been compiled by the Bureau since 1944–45 and have been published annually as papers entitled *National Income and Expenditure* accompanying the Commonwealth Budgets. Detailed annual estimates of national income and expenditure on a revised basis were published in *Australian National Accounts, National Income and Expenditure*, 1953–54 *to* 1965–66. Preliminary estimates for 1965–66 were published in a Budget Paper. Quarterly estimates are published in *Quarterly Estimates of National Income and Expenditure.*

The figures shown on pages 663–70 are as published in *Australian National Accounts, National Income and Expenditure*, 1953–54 *to* 1965–66.

Description of the National Accounts

A brief description of the conceptual basis of national accounts is given in this section, but for a more detailed treatment of the concepts and structure of the Australian National Accounts reference should be made to *Australian National Accounts, National Income and Expenditure*, 1953–54 *to* 1965–66 or to Year Book No. 50, pages 1253–68.

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian National Accounts are defined and expressed in equivalents as follows.

Gross national expenditure is the total expenditure within a given period on final goods and services (i.e. excluding goods and services produced or imported and used up in the process of further production) bought for use in the Australian economy. It is equivalent to gross national product, plus imports of goods and services, less exports of goods and services.

National turnover of goods and services is the total flow of final goods and services within a given period in the Australian economy as a whole (i.e. excluding goods and services produced or imported and used up in the process of further production) derived from production in Australia and imports. This value is equivalent to gross national product plus imports of goods and services or, alternatively, to gross national expenditure plus exports of goods and services.

Gross national product is the total market value of goods and services produced in Australia within a given period after deduction of the cost of goods and services, other than capital equipment, used in the process of production. Thus gross national product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure, plus exports of goods and services, less imports of goods and services.

Gross national product at factor cost is that part of the cost of producing the gross national product which consists of gross payments to factors of production (labour, land, capital, and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross national product, less indirect taxes, plus subsidies.

Net national product is the part of the value added within a given period by factors of production (labour, land, capital, and enterprise) which accrues as income to their suppliers after allowing for the depreciation of capital equipment. It is equivalent to gross national product at factor cost less allowance for depreciation.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital, and enterprise), in Australia or overseas. It is equivalent to net national product, plus income receivable from overseas, less income payable overseas.

Personal income is the total income, whether in cash or kind, received by persons normally resident in Australia. It includes both income received in return for productive activity (such as wages, salaries and supplements, incomes of unincorporated enterprises, etc.) and transfer incomes (such as cash social service benefits, interest, etc.). Personal income also includes any property income received by non-taxable organisations such as private schools, churches, charitable organisations, etc. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income and retained investment income of life insurance, etc., funds.

Framework of accounts and sectors

In the accounts shown in Tables 1 to 7 four internal sectors are distinguished—persons, public authorities, financial enterprises, and trading enterprises. In addition, there is an overseas sector which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents. All the sectors (except the overseas sector) engage in productive activity, but in the tables a national production account for the whole economy is shown instead of separate accounts for each sector. Similarly, the tables show only a national capital account for the economy, but a current (or income appropriation) account is shown for each sector. The system of accounts as thus envisaged is a completely articulated system in that a credit in any account must be matched with a corresponding debit in some other account—or in the same account if a complete consolidation of the transactions appropriate to that account has not been carried through.

The framework of sectors and accounts underlying the form of social accounts shown in this Year Book is set out in the following diagram. As stated in the previous paragraph, each sector could be envisaged as having separate production, appropriation and capital accounts, but in the tables compiled for Australia the production and capital accounts have been combined. In the diagram the solid rectangles depict the actual form of the tables, and the remaining rectangles show the full amount of detail which would be needed to provide a complete articulation of the accounts. The appropriate number of each table on pages 663–7 is shown on the left of the diagram.

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS

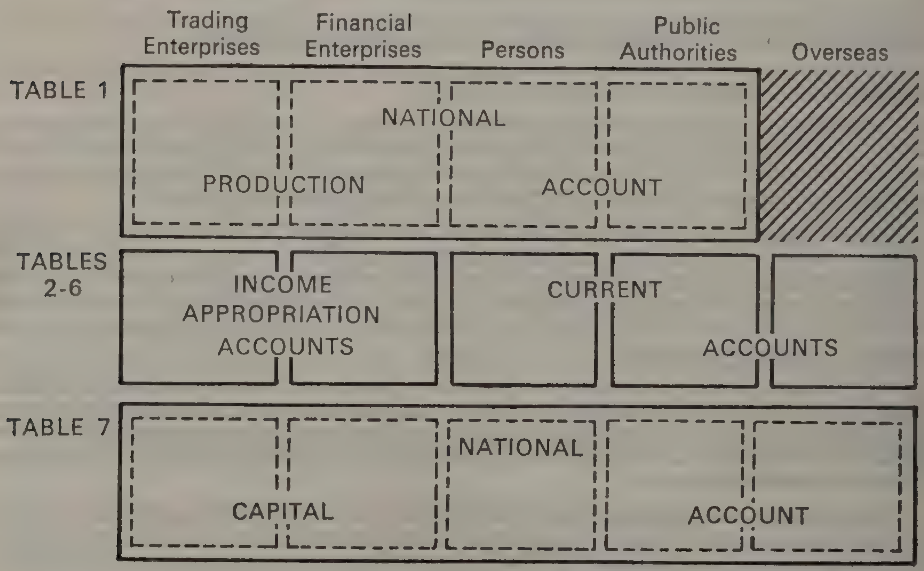


PLATE 38

Description of the accounts

The *national production account* is a consolidation of the production accounts of each sector. The production account is shown as receiving revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes, and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees. The balance is the gross operating surplus which is carried to the trading enterprises income appropriation account.

The *trading enterprises income appropriation account* is shown as receiving the gross operating surpluses from the national production account, and dividends, non-dwelling rent and interest from other sectors. The allocation of this total to depreciation allowances and to various transfer payments (taxes, dividends, interest, etc.) is shown on the appropriation side. All net income of unincorporated enterprises is treated as being transferred to persons. Any income of trading companies not distributed but retained for use in the business is shown as undistributed income and transferred to the national capital account either directly or by way of the overseas current account (when it accrues to non-residents).

The *financial enterprises income appropriation account* is in the main similar to the preceding account. There is, however, no operating surplus, as property income (which is treated as transfer income, not as income of factors of production) is the sole receipt.

The *personal current account* records all receipts on current account whether of factor incomes (wages and salaries) or transfer incomes (interest, etc., dividends, net business incomes, cash benefits from public authorities, and remittances from overseas). On the payments side are shown current payments for goods and services and transfer payments (taxes, interest, etc., remittances to overseas). The balance is transferred to the national capital account under the heading of saving.

The *public authorities current account* reflects a distinction between current and capital expenditure, which is necessarily arbitrary in some measure and has been made on the basis of excluding from the current account expenditure on public works and increase in stocks. Expenditure on public works is taken to include new buildings, construction, plant and machinery, and any replacement of assets charged to loan funds or capital works votes. It includes capital expenditure of public enterprises, including replacements of assets charged to depreciation reserves but not those charged directly to working expenses. It includes all expenditure on roads for which a satisfactory distinction between new works and maintenance cannot be made, but excludes all defence expenditure, which is included in the current account.

The income of public enterprises shown in this account is derived by deducting from their operating surplus any depreciation shown by these enterprises in their published accounts, except in the case of enterprises (e.g. railways and Postmaster-General's Department) whose accounts are included in the Commonwealth or State budgets and are for the present analysed on the basis of these cash accounts in which depreciation is not deducted. The depreciation allowances set aside by the enterprises whose accounts are not included in Commonwealth or State budgets are shown in the capital account. As in the case of persons, all overseas gifts are included in the current account. These include gifts for international relief, technical assistance, etc., grants, and other expenditure in connection with the administration of Papua and New Guinea.

The *overseas current account* records all transactions of a current nature between Australian and overseas residents. It should be emphasised that this account is shown here from the point of view of overseas residents, i.e. receipts from Australia are shown as credits, and payments to Australia as debits. Australians temporarily overseas are regarded as residents, and visitors to Australia as non-residents.

Capital transactions of the four domestic sectors and the net deficit on current account with overseas are shown in the *national capital account*. On the receipts side are shown the savings of the various sectors—saving by enterprises, personal saving, the retained investment income of insurance funds, and the public authority surplus on current account. Net apparent capital inflow from overseas and withdrawal from monetary reserves is also reflected in the item 'overseas balance on current account'. On the payments side are shown the purchases by all sectors of new buildings and capital equipment and the increase in the value of stocks. The private component of capital expenditure includes new dwellings and major alterations to dwellings and expenditure of a capital nature by private non-profit institutions (churches, schools, clubs, etc.), but excludes motor vehicles for personal use and other durable consumer goods, which are included in personal consumption expenditure.

Estimates at constant prices

For certain types of economic analysis it is useful to examine estimates of the principal flows of goods and services in the economy revalued in such a way as to remove the direct effects of changes in their prices which have occurred between the years under review. Such estimates, conventionally described as 'at constant prices', are presented in Table 8 for gross national product, gross national expenditure, and the principal components of the latter.

Constant price estimates amount to an attempt to express every component item of expenditure as the product of a price and a quantity, instead of only as a value, and to substitute for the actual current prices the prices that ruled in the chosen base year. Such estimates can be made only on the basis of approximations and assumptions, and this should be borne in mind in the interpretation and use of the results.

Estimates of gross national expenditure at constant prices. For a considerable part of personal consumption expenditure it is possible to identify specific units of quantity and price and to revalue the quantities at base-year prices. Where it is not possible to express the values in successive years as the product of prices and homogeneous units of quantity, the treatment generally adopted is to divide values by appropriate price indexes.

For the remaining components of gross national expenditure a greater degree of approximation and assumption is involved. Some components of gross fixed capital expenditure are revalued by means of appropriate price or volume indexes. For the remaining components of gross national expenditure, where homogeneous or standard units of quantity do not exist, the values are divided by indexes of prices of labour and materials. The resulting estimates have considerable limitations for many uses, for example in studies of productivity.

The information available on which to base an estimate of changes in stocks at constant prices is very limited, and hence any estimate made is subject to an appreciable margin of error. The method used involves an adjustment for stock revaluation, arising out of the replacement during the year of trading stocks with equivalent new stocks at different prices, or because of the practice of revaluing existing stocks.

Estimation of gross national product at constant prices. Gross national product may be thought of as the difference between the value of output and the value of materials used in production; that is, as the difference between the values of two flows of goods and services. By revaluing each of these flows it is possible to revalue gross national product in this sense.

Gross national product is equivalent to gross national expenditure, plus exports of goods and services, less imports of goods and services. This relationship has been used in deriving the estimates of gross national product at constant prices shown in Table 8. Availability of data at present makes it more practicable to take the aggregate estimates of gross national expenditure at constant prices supplemented by similar estimates for exports and imports of goods and services for the whole economy, rather than to use a method involving revaluation of the sales and purchases of trading enterprises firm by firm or industry by industry.

Part I of *Australian National Accounts, National Income and Expenditure*, 1953–54 *to* 1965–66 contains a fuller discussion of the conceptual problems involved in making these estimates, and Appendix B of that publication contains a brief account of the sources and methods used in preparing the estimates.

Reliability and future revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of information, some of which is available quickly, some of it with a delay of several years after the period to which it relates. Some of it is closely related to the desired national income concepts, while some of it is not completely satisfactory in various respects, including coverage, concepts and timing. Estimates, in particular for the most recent years, are therefore subject to revision.

This applies especially to estimates based on income tax statistics—income of companies, non-farm unincorporated enterprises, depreciation, and part of gross private fixed investment—which are subject to substantial revisions for the last two years, as tabulations of income tax statistics do not become available until about twenty-two months after the end of each financial year.

It is not possible to put precise limits on the degree of revision likely in any particular series, nor to state degrees of reliability in a statistical sense. These depend in large part on the range and quality of the basic statistical data. For illustrations of common causes of revisions reference should be made to *Australian National Accounts, National Income and Expenditure*, 1953–54 *to* 1965–66.

National accounts and tables

Items in tables 1 to 7 are consecutively numbered from 1 to 28, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts and as a key to the notes on pages 671–4. In some cases the items correspond exactly, while in other cases an entry in one table is the sum of two or more entries in other tables; here the total is given a number, and the components have a number and a letter. In the remaining type of case all entries are given the same number and a distinguishing letter, because in this group one item is not the sum of one or more entries. The relationship between these items can still be traced through because the sum of all credit entries must equal the sum of all debit entries.

TABLE 1
NATIONAL PRODUCTION ACCOUNT
($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
1 Wages, salaries, and supplements	7,639	8,064	8,792	9,809	10,592
Gross operating surplus of trading enterprises—					
2*a* Companies	1,982	2,238	2,536	2,792	2,847
2*b* Unincorporated enterprises	2,743	2,997	3,460	3,534	3,326
2*c* Dwellings owned by persons	641	729	817	891	959
2*d* Public enterprises	392	487	562	615	643
Gross national product at factor cost	13,397	14,515	16,167	17,641	18,367
3 Indirect taxes less subsidies	1,578	1,721	1,831	2,065	2,224
Gross national product	14,975	16,236	17,998	19,706	20,591
4 Imports of goods and services	2,204	2,620	2,866	3,474	3,625
National turnover of goods and services	*17,179*	*18,856*	*20,864*	*23,180*	*24,216*
Net current expenditure on goods and services—					
5 Personal consumption	9,591	10,272	11,047	11,904	12,531
6 Financial enterprises	202	207	233	256	279
7 Public authorities	1,522	1,625	1,776	2,039	2,372
Gross fixed capital expenditure—					
8 Private	2,295	2,530	2,875	3,340	3,639
9 Public enterprises	743	778	847	998	1,096
10 Public authorities	600	638	719	801	872
11 Increase in value of stocks	–205	319	137	625	186
12 Statistical discrepancy	–38	–7	67	168	93
Gross national expenditure	14,710	16,362	17,701	20,131	21,068
13 Exports of goods and services	2,469	2,494	3,163	3,049	3,148
National turnover of goods and services	*17,179*	*18,856*	*20,864*	*23,180*	*24,216*

TABLE 2

TRADING ENTERPRISES INCOME APPROPRIATION ACCOUNT

($ million)

		1961–62	1962–63	1963–64	1964–65	1965–66
2	Gross operating surplus	5,758	6,451	7,375	7,832	7,775
15*b*, 17*b*	Interest, etc., and dividends received	94	109	120	132	146
18*b*	Undistributed income accruing from overseas	9	9	14	18	20
	Total receipts	*5,861*	*6,569*	*7,509*	*7,982*	*7,941*
14*a*	Depreciation allowances	1,187	1,250	1,410	1,541	1,666
15*a*	Interest, etc., paid	602	662	730	842	945
	Company income—					
16*a*	Income tax payable	521	584	685	731	
17*a*	Dividends payable	467	491	519	547	
18*a*	Undistributed income	368	491	580	679	
	Total company income	1,356	1,566	1,784	1,957	1,926
19	Unincorporated enterprises income	2,092	2,315	2,708	2,695	2,418
20	Personal income from dwelling rent	351	413	466	500	528
21*a*	Public enterprises income	273	363	411	447	458
	Total outlay	*5,861*	*6,569*	*7,509*	*7,982*	*7,941*

TABLE 3

FINANCIAL ENTERPRISES INCOME APPROPRIATION ACCOUNT

($ million)

		1961–62	1962–63	1963–64	1964–65	1965–66
15*d*	Interest, etc. received	831	893	1,004	1,135	1,237
17*d*, 18*d*	Dividends received and undistributed income accruing from overseas	19	22	27	31	35
	Total receipts	*850*	*915*	*1,031*	*1,166*	*1,272*
14*b*	Depreciation allowances	15	18	21	25	29
6	Net current expenditure on goods and services	202	207	233	256	279
15*c*	Interest paid	276	289	316	382	420
	Company income—					
16*b*	Income tax payable	37	43	50	54	
17*c*	Dividends payable	35	41	42	40	
18*c*	Undistributed income	5	6	18	15	
	Total company income	77	90	110	109	111
21*b*	Public enterprises income	91	96	109	127	130
22	Retained investment income of life insurance funds, etc.	189	215	242	267	303
	Total outlay	*850*	*915*	*1,031*	*1,166*	*1,272*

TABLE 4
PERSONAL CURRENT ACCOUNT
($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
1 Wages, salaries and supplements	7,639	8,064	8,792	9,809	10,592
15*f* Interest, etc. received	380	408	433	495	530
17*e* Dividends	344	352	384	394	399
19*a* Unincorporated enterprises income—Farm	926	1,106	1,390	1,255	902
19*b* Other	1,166	1,209	1,318	1,440	1,516
20 Income from dwelling rent	351	413	466	500	528
23*b* Remittances from overseas	63	67	100	112	119
25 Cash benefits from public authorities	915	952	1,047	1,101	1,181
Total receipts	*11,784*	*12,571*	*13,930*	*15,106*	*15,767*
5 Personal consumption expenditure	9,591	10,272	11,047	11,904	12,531
15*e* Interest paid	132	132	162	171	170
16*c* Income tax payable	984	1,088	1,272	1,497	1,661
16*d* Estate and gift duties	115	122	137	140	137
23*a* Remittances overseas	47	54	61	65	73
24 Saving	915	903	1,251	1,329	1,195
Total outlay	*11,784*	*12,571*	*13,930*	*15,106*	*15,767*

TABLE 5
PUBLIC AUTHORITIES CURRENT ACCOUNT
($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
3*a* Indirect taxes	1,668	1,799	1,941	2,160	2,364
16*e* Income tax, estate and gift duties received	1,768	1,740	2,009	2,432	2,681
15*h* Interest, etc. received	76	71	80	103	112
21 Public enterprises income	364	459	520	574	588
Total receipts	*3,876*	*4,069*	*4,550*	*5,269*	*5,745*
7 Net current expenditure on goods and services	1,522	1,625	1,776	2,039	2,372
3*b* Subsidies	90	78	110	95	140
15*g* Interest, etc. paid	400	437	471	504	530
23*c* Overseas grants	66	73	87	107	129
25 Cash benefits to persons	915	952	1,047	1,101	1,181
26 Grants towards private capital expenditure	12	11	11	31	53
27 Surplus on current account	871	893	1,048	1,392	1,340
Total outlay	*3,876*	*4,069*	*4,550*	*5,269*	*5,745*

Table 6

OVERSEAS CURRENT ACCOUNT

($ million)

		1961–62	1962–63	1963–64	1964–65	1965–66
4*a*	Imports f.o.b.	1,701	2,065	2,237	2,739	2,826
4*b*	Transportation	335	374	418	484	519
4*c*	Travel	82	90	102	114	121
4*d*	Government transactions	35	37	42	51	66
4*e*	Other goods and services	51	54	67	86	93
4	Total imports of goods and services	2,204	2,620	2,866	3,474	3,625
15*j*, 17*g*	Interest, etc. paid and dividends payable and profits remitted overseas	231	253	263	290	301
18*f*	Undistributed income accruing to overseas residents	66	106	133	122	95
23*a*	Personal remittances overseas	47	54	61	65	73
23*c*	Public authority grants	66	73	87	107	129
	Total credits to non-residents	*2,614*	*3,106*	*3,410*	*4,058*	*4,223*
13*a*	Exports f.o.b.	2,128	2,123	2,732	2,575	2,636
13*b*	Transportation	200	220	254	278	297
13*c*	Travel	36	35	43	54	59
13*d*	Government transactions	45	48	62	60	76
13*e*	Other goods and services	60	68	72	82	80
13	Total exports of goods and services	2,469	2,494	3,163	3,049	3,148
15*i*, 17*f*	Interest, etc. received and dividends receivable from overseas	71	67	80	101	106
18*e*	Undistributed income accruing from overseas	9	9	14	18	20
23*b*	Personal remittances from overseas	63	67	100	112	119
28	Overseas balance on current account	2	469	53	778	830
	Total debits to non-residents	*2,614*	*3,106*	*3,410*	*4,058*	*4,223*

TABLE 7

NATIONAL CAPITAL ACCOUNT

($ million)

		1961–62	1962–63	1963–64	1964–65	1965–66
14	Depreciation allowances	1,202	1,268	1,431	1,566	1,695
16*f*, 17*h*	Increase in dividend and income tax provisions	−103	108	144	−3	−102
18*g*	Undistributed company income accruing to residents	307	391	465	572	572
22	Retained investment income of life insurance funds, etc.	189	215	242	267	303
24	Personal saving	915	903	1,251	1,329	1,195
26	Public authority grants towards private capital expenditure	12	11	11	31	53
27	Public authorities surplus on current account	871	893	1,048	1,392	1,340
	Overseas balance on current account—					
28*a*	Withdrawal from overseas monetary reserves(*a*)	−176	−146	−450	297	−61
28*b*	Net apparent capital inflow	178	615	503	481	891
	Total capital funds accruing	*3,395*	*4,258*	*4,645*	*5,932*	*5,886*
	Gross fixed capital expenditure—					
8*a*	Private—Dwellings	587	643	754	889	890
8*b*	Other new building	458	521	571	622	749
8*c*	All other	1,250	1,366	1,550	1,829	2,000
9	Public enterprises	743	778	847	998	1,096
10	Public authorities	600	638	719	801	872
	Total gross fixed capital expenditure	3,638	3,946	4,441	5,139	5,607
11*a*	Increase in value of stocks—Farm	−89	88	−26	102	−83
11*b*	Other	−116	231	163	523	269
	Total use of funds	3,433	4,265	4,578	5,764	5,793
12	Statistical discrepancy	−38	−7	67	168	93
	Total capital funds accruing	*3,395*	*4,258*	*4,645*	*5,932*	*5,886*

(*a*) Minus sign (—) indicates an addition to reserves.

TABLE 8
VALUE OF MAIN AGGREGATES AT CURRENT AND AVERAGE 1959-60 PRICES
($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
AT CURRENT PRICES					
Personal consumption expenditure	9,591	10,272	11,047	11,904	12,531
Current expenditure by financial enterprises and public authorities	1,724	1,832	2,009	2,295	2,651
Gross fixed capital expenditure—					
Public	1,343	1,416	1,566	1,799	1,968
Private—Dwellings	587	643	754	889	890
Other	1,708	1,887	2,121	2,451	2,749
Increase in value of stocks	–205	319	137	625	186
Statistical discrepancy	–38	–7	67	168	93
Total gross national expenditure	14,710	16,362	17,701	20,131	21,068
Gross national expenditure after stock valuation adjustment	14,748	16,276	17,580	19,961	20,864
Plus Exports of goods and services	2,469	2,494	3,163	3,049	3,148
Less Imports of goods and services	2,204	2,620	2,866	3,474	3,625
Gross national product after stock valuation adjustment	15,013	16,150	17,877	19,536	20,387
AT AVERAGE 1959–60 PRICES(*a*)					
Personal consumption expenditure	9,148	9,757	10,301	10,755	10,936
Current expenditure by financial enterprises and public authorities	1,623	1,695	1,757	1,915	2,150
Gross fixed capital expenditure—					
Public	1,242	1,291	1,385	1,539	1,621
Private—Dwellings	567	619	713	816	792
Other	1,655	1,823	2,030	2,276	2,488
Statistical discrepancy	–36	–7	62	150	80
Gross national expenditure after stock valuation adjustment	14,037	15,405	16,259	17,871	18,048
Plus Exports of goods and services	2,587	2,558	2,975	2,995	3,054
Less Imports of goods and services	2,266	2,751	3,016	3,569	3,650
Gross national product after stock valuation adjustment	14,358	15,212	16,218	17,297	17,452

(*a*) *See* pages 661–2.

TABLE 9
RELATIONSHIP OF MAIN AGGREGATES
($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
Net current expenditure on goods and services	11,315	12,104	13,056	14,199	15,182
Gross fixed capital expenditure . . .	3,638	3,946	4,441	5,139	5,607
Increase in value of stocks	–205	319	137	625	186
Statistical discrepancy	–38	–7	67	168	93
Gross national expenditure . . .	**14,710**	**16,362**	**17,701**	**20,131**	**21,068**
Plus Exports of goods and services . .	2,469	2,494	3,163	3,049	3,148
National turnover of goods and services .	**17,179**	**18,856**	**20,864**	**23,180**	**24,216**
Less Imports of goods and services . .	2,204	2,620	2,866	3,474	3,625
Gross national product	**14,975**	**16,236**	**17,998**	**19,706**	**20,591**
Less Indirect taxes *less* subsidies . . .	1,578	1,721	1,831	2,065	2,224
Gross national product at factor cost .	**13,397**	**14,515**	**16,167**	**17,641**	**18,367**
Less Depreciation allowances of trading enterprises	1,187	1,250	1,410	1,541	1,666
Net national product	**12,210**	**13,265**	**14,757**	**16,100**	**16,701**
Less Net income payable overseas . .	217	283	302	293	270
National income	**11,993**	**12,982**	**14,455**	**15,807**	**16,431**
Plus Net income payable overseas . .	217	283	302	293	270
Net national product	**12,210**	**13,265**	**14,757**	**16,100**	**16,701**
Less Net operating surplus of companies and public enterprises	1,777	2,088	2,369	2,620	2,634
Less Interest, etc. paid by unincorporated enterprises and dwellings owned by persons	351	385	422	476	529
Plus Interest received by persons . . .	380	408	433	495	530
Dividends received by persons . . .	344	352	384	394	399
Cash benefits to persons . . .	915	952	1,047	1,101	1,181
Remittances from overseas . . .	63	67	100	112	119
Personal income	**11,784**	**12,571**	**13,930**	**15,106**	**15,767**
Less Income tax payable and estate and gift duties	1,099	1,210	1,409	1,637	1,798
Personal disposable income . . .	**10,685**	**11,361**	**12,521**	**13,469**	**13,969**

Table 10

MAIN AGGREGATES AT CURRENT PRICES, 1949–50 TO 1965–66

($ million)

Year	1 Personal consumption	2 Net current expenditure on goods and services by public authorities and financial enterprises	3 Private gross fixed capital expenditure	4 Public gross fixed capital expenditure	5 Increase in value of stocks	6 Statistical discrepancy	7 (1 to 6) Gross national expenditure
1949–50	3,442	468	644	399	315	44	5,312
1950–51	4,185	634	919	576	531	−31	6,814
1951–52	4,986	867	1,128	793	775	97	8,646
1952–53	5,289	997	1,136	775	−181	−199	7,817
1953–54	5,813	954	1,309	798	42	−81	8,835
1954–55	6,318	1,026	1,470	848	278	87	10,027
1955–56	6,784	1,150	1,624	903	345	−21	10,785
1956–57	7,250	1,203	1,689	934	49	−115	11,010
1957–58	7,607	1,243	1,838	977	2	8	11,675
1958–59	8,005	1,360	1,895	1,075	332	−82	12,585
1959–60	8,773	1,488	2,160	1,169	236	147	13,973
1960–61	9,297	1,592	2,381	1,203	521	79	15,073
1961–62	9,591	1,724	2,295	1,343	−205	−38	14,710
1962–63	10,272	1,832	2,530	1,416	319	−7	16,362
1963–64	11,047	2,009	2,875	1,566	137	67	17,701
1964–65	11,904	2,295	3,340	1,799	625	168	20,131
1965–66	12,531	2,651	3,639	1,968	186	93	21,068

Year	8 Exports of goods and services	9 Imports of goods and services	10 (7 + 8 − 9) Gross national product	11 National income	12 Personal income	13 Wages, salaries and supplements	14 Net income payable overseas
1949–50	1,308	1,261	5,359	4,413	4,428	2,467	102
1950–51	2,092	1,726	7,180	6,063	6,058	3,103	120
1951–52	1,486	2,437	7,695	6,411	6,328	3,921	126
1952–53	1,855	1,312	8,360	7,039	7,002	4,238	119
1953–54	1,793	1,601	9,027	7,473	7,270	4,512	159
1954–55	1,707	1,983	9,751	8,015	7,794	4,937	164
1955–56	1,740	1,953	10,572	8,638	8,471	5,409	189
1956–57	2,190	1,736	11,464	9,318	9,055	5,722	189
1957–58	1,847	1,925	11,597	9,189	8,998	5,930	187
1958–59	1,868	1,960	12,493	9,901	9,693	6,211	254
1959–60	2,150	2,285	13,838	10,986	10,632	6,887	284
1960–61	2,175	2,604	14,644	11,633	11,404	7,420	265
1961–62	2,469	2,204	14,975	11,993	11,784	7,639	217
1962–63	2,494	2,620	16,236	12,982	12,571	8,064	283
1963–64	3,163	2,866	17,998	14,455	13,930	8,792	302
1964–65	3,049	3,474	19,706	15,807	15,106	9,809	293
1965–66	3,148	3,625	20,591	16,431	15,767	10,592	270

Description of items in the National Accounts

Tables 1 to 7

Item 1. *Wages, salaries and supplements.* Payments in the nature of wages and salaries as defined for pay-roll tax, including allowances for income in kind (board and quarters, etc.), together with supplements to wages, and pay and allowances of members of the forces. In addition to wages and salaries paid by employers subject to pay-roll tax, this item includes wages and salaries paid by employers not subject to pay-roll tax, based on estimates of employment and average earnings. Supplements consist of employers' contributions to pension and superannuation funds, direct payments of pensions and retiring allowances, and amounts paid as workers' compensation for injuries. Pay and allowances of members of the forces consist of active pay, field allowances, subsistence allowances, dependants' allowances, and the value to the members of the forces of food, clothing, normal medical attention, etc. supplied in kind.

Item 2. *Gross operating surplus of trading enterprises.* The operating surplus, before deduction of depreciation provisions, dividends, interest, rent and royalties, and direct taxes payable of all trading enterprises operating in Australia. Trading enterprises include all companies, public enterprises, partnerships, and self-employed persons engaged in the production of goods and services for sale, but exclude financial enterprises. Public trading enterprises are government undertakings which attempt to recover all, or a substantial part, of their costs through charges made to the public for the sale of goods and services. All owners of dwellings are included whether they let the dwellings or occupy them themselves. Trading enterprises' gross operating surplus is shown separately for companies (item 2*a*), unincorporated enterprises (item 2*b*), dwellings owned by persons (item 2*c*), and public enterprises (item 2*d*).

Item 3. *Indirect taxes less subsidies.* Indirect taxes comprise taxes on purchases, sales or other transactions, or on the ownership of property, etc. paid by enterprises, public authorities and persons. They include licence fees in respect of rights conferred, such as liquor licences, etc. Subsidies are transfer payments made with the object of providing incentives to, or of assisting, certain industries or activities. Such payments may take the form of bounties on goods produced, subsidies to producers to ensure a guaranteed price, payments to transport undertakings to permit a reduction of freights on certain classes of goods, assistance to producers, etc.

Item 4. *Imports of goods and services.* The value of goods imported from overseas and amounts payable overseas for services. In Table 6 this item is sub-divided into the following components.

Item 4*a*. *Imports f.o.b.* Recorded trade figures adjusted for the purpose of balance of payments estimates. The principal adjustments are the addition of unrecorded imports, including ships and aircraft for use on overseas routes, the subtraction of films imported on a rental basis, imports of gold, goods for repair and goods intended for re-export, and the deduction of a 'valuation adjustment' representing the excess of the recorded value of imports (based on value for duty) over the estimated selling price to the importer as shown on invoices accompanying customs entries.

Item 4*b*. *Transportation.* Freight payable to foreign carriers on goods imported into Australia and transported between Australian ports, fares payable in Australia, the overseas expenditure of Australian ships, remittances to foreign airlines, and premiums (less claims) on marine insurance payable overseas on imports into Australia, less the net earnings on marine insurance business undertaken by Australian firms in respect of both exports and imports.

Item 4*c*. *Travel.* Net remittances in the form of travellers' cheques, etc., by Australians visiting overseas for pleasure and for business.

Item 4*d*. *Government transactions.* Expenditure overseas for defence, including the pay and allowances of personnel serving overseas, expenditure overseas on diplomatic, consular and trade representation, contributions to international organisations, government pensions paid abroad, overseas expenditure on immigration, and miscellaneous payments for services.

Item 4*e*. *Other goods and services.* Cinema and television film rentals payable overseas, expenses of Australian firms transacting business overseas, commissions, brokerage, etc., and the value of repairs on goods previously exported for repair and return, etc.

Item 5. *Net current expenditure on goods and services—personal consumption.* Net expenditure on goods and services for purposes of consumption by persons and private non-profit making bodies serving persons. This item excludes the purchase of dwellings and capital expenditure by non-profit making bodies (included in item 8), and maintenance of dwellings (treated as expenses of private enterprises), but includes personal expenditure on motor vehicles and other durable goods and the imputed rent of owner-occupied dwellings. Purchase of motor vehicles is the estimated expenditure by persons on new motor vehicles, second-hand motor vehicles purchased from business enterprises and public authorities, and net dealers' margins on purchases and sales of motor vehicles within the personal sector. Motor vehicles include cars, station wagons, motor cycles, and motor scooters bought on personal account. The value of income in kind (e.g. food produced and consumed on farms, board and lodging provided free to employees) is included in both personal income and personal consumption expenditure, but goods chargeable to business (expense) accounts are excluded.

Item 6. *Net current expenditure on goods and services—financial enterprises.* The current expenditure of banks, instalment credit companies, short-term money market companies, and building societies after deduction of bank charges to customers. Charges by instalment credit companies are treated as interest receipts and therefore are not offset against expenditure. This item includes wages, salaries and supplements, indirect taxes, and other payments for goods and services. Public financial enterprises are government businesses (mainly banks, including the Reserve Bank) which operate in a manner analogous to other financial enterprises. in that their current expenditure is largely financed by the net receipt of interest. The interest received by government housing authorities is treated as a receipt by public financial enterprises, but their other receipts, including net profit on sale of houses, and all their expenditure, are included in those of public trading enterprises.

Item 7. *Net current expenditure on goods and services—public authorities.* Expenditure by public authorities (not public enterprises) which does not result in the creation of fixed tangible assets or in the acquisition of land, buildings or second-hand goods (other than imported). It comprises expenditure on wages, salaries, and supplements, and on goods and services other than fixed assets and stocks; fees, etc. charged by public authorities for goods sold and services rendered are offset against purchases. Net expenditure overseas by public authorities and purchases from public enterprises are included. All expenditure on defence is classified as current.

Item 8. *Gross fixed capital expenditure—private.* Expenditure on fixed assets whether for additions or replacements. This item includes expenditure on dwellings (item 8*a*), other building and construction (item 8*b*), and vehicles, plant, machinery, etc. (item 8*c*). It includes also expenditure on second-hand assets (other than houses purchased from public authorities) as well as new assets, less sales of existing assets. Expenditure on ordinary repair and maintenance of fixed assets is excluded as being chargeable to current account. Major additions are, however, regarded as capital expenditure. New dwellings purchased by persons from public housing authorities are included in private capital expenditure.

Item 9. *Gross fixed capital expenditure—public enterprises.* Expenditure on fixed assets whether for additions or replacements, including wages and salaries paid by public enterprises in connection with capital works.

Item 10. *Gross fixed capital expenditure—public authorities.* Expenditure on fixed assets whether for additions or replacements other than for defence purposes. Because it has not been possible to make a satisfactory dissection, all expenditure on roads, including maintenance, is classified as fixed capital expenditure. Expenditure on housing, included in this item, includes the estimated expenditure on construction of dwellings for rental purposes and hostels for migrants and others, but excludes houses built for sale, which are included in private capital expenditure. Advances by War Service Homes Division and other authorities for financing home purchase schemes are also excluded.

Item 11. *Increase in value of stocks.* The change in book value of non-farm stocks held by trading enterprises and public authorities (item 11*b*) and the change in the value of farm stocks (item 11*a*).

Item 12. *Statistical discrepancy.* The difference between the sum of the direct estimates of gross national product and imports of goods and services on the one hand and the sum of the estimates of components of gross national expenditure and exports of goods and services on the other hand. Conceptually these two totals are the same. Inclusion of the discrepancy on the expenditure side of the national production account implies nothing as to the relative accuracy of the estimates of gross national product and expenditure. Similarly its inclusion in the capital account does not imply that estimates in this table are less accurate than those in other tables, or that capital expenditure estimates are less accurate than estimates on the receipts side of this account.

Item 13. *Exports of goods and services.* The value of goods exported overseas and receipts from overseas for other goods and services. In Table 6 this item is sub-divided into the following components.

Item 13*a*. *Exports f.o.b.* The recorded trade figures adjusted for balance of payments purposes. The adjustments are similar to those made to the recorded import figures but no change is made to the basis of valuation. The adjustment for unrecorded exports includes exports of uranium ores.

Item 13*b*. *Transportation.* The expenditure of overseas carriers in Australian ports, the overseas earnings of ships owned or chartered by Australian operators, the remittances from overseas to Australian domestic and international airline operators.

Item 13*c*. *Travel.* Net receipts of travellers' cheques, etc. from persons visiting Australia for pleasure and for business.

Item 13*d*. *Government transactions.* Receipts for services rendered by the Australian Government to other governments and other payments in Australia by foreign governments on defence and other projects, on diplomatic, consular and trade representation, and for pensions paid in Australia.

Item 13*e*. *Other goods and services.* The value of Australian production of gold less net industrial usage, business expenses of overseas firms in Australia, and commissions, brokerage, etc.

Item 14. *Depreciation allowances.* The financial provisions made for depreciation which are deducted to obtain net income. The estimates represent, in the main, amounts allowed under income tax legislation, but include also the estimated depreciation on tenanted and owner-occupied dwellings and provisions made by public enterprises. This item is divided into depreciation allowances of trading enterprises (item 14*a*) and of financial enterprises (item 14*b*).

Item 15. *Interest, etc.* Comprises interest, non-dwelling rent and royalties. This item appears in most accounts as receipts and payments of interest, etc., but in the case of some entries the amounts are combined with dividends and overseas profits. The item is shown net of intra-sector receipts and payments. Payment of interest, etc. by public enterprises is included in item 15*g*. Payment of interest, etc. by trading enterprises (item 15*a*) includes interest charged on borrowings for the purchase of a house by persons, which is treated as an appropriation from the gross operating surplus of dwellings owned by persons. Non-dwelling rent includes only actual payments. It is estimated net of the expenses of the owner of the premises on rates, maintenance, etc., which are treated as working expenses of the enterprises renting the building. Royalties include mining and forestry royalties paid to public authorities and royalties and fees for use of trade marks, patents, etc. paid overseas.

Item 16. *Income tax, estate and gift duties.* Income tax payable by trading and financial companies (items 16*a* and 16*b*) and persons (item 16*c*) are amounts payable at rates of taxation applicable in each year. Income tax payable by companies in respect of the most recent year's income is estimated on the basis of rates of tax applicable in respect of the preceding year's income. The difference between the amounts of income tax payable and the cash receipts by public authorities (part of item 16*e*) is included in item 16*f*. Income tax payable by persons (item 16*c*) includes the total income tax payable by individuals on all forms of income whether wages, business income or property income. Estate and gift duties (item 16*d*) are the amounts actually paid by persons in that year.

Item 17. *Dividends.* All receipts and payments of dividends, including dividends payable overseas and the remitted profits of Australian branches of overseas enterprises. Dividends payable (items 17*a* and 17*c*) are the dividends declared by trading and financial companies in respect of the year (including an estimate of dividends to be declared in respect of the most recent year). Receipts of dividends (other than dividends receivable from overseas subsidiaries) are cash receipts, and the difference between the amounts payable and received is included in item 17*h*. The items are shown net of intra-sector receipts and payments.

Item 18. *Undistributed income.* The undistributed income of companies comprising trading enterprises (item 18*a*) and financial enterprises (item 18*c*) is the balance of total company income, including profits receivable from overseas (items 18*b* and 18*d*) after deduction of income tax and dividends payable, and is equal to the sum of undistributed income accruing to overseas residents (item 18*f*) and undistributed company income accruing to residents (item 18*g*). Profits receivable from overseas is the unremitted part of profits earned by overseas branches of Australian companies and undistributed profits of overseas subsidiaries of Australian companies.

Item 19. *Unincorporated enterprises income.* The gross operating surplus of unincorporated enterprises less interest, etc. paid and depreciation allowances. It comprises the income of farm unincorporated enterprises (item 19*a*) and the income of all other unincorporated enterprises (item 19*b*).

Item 20. *Personal income from dwelling rent.* The gross operating surplus of dwellings owned by persons less interest, etc. paid and depreciation allowances.

Item 21. *Public enterprises income.* Includes income of public trading enterprises (item 21*a*) and income of public financial enterprises (item 21*b*). For trading enterprises it is equal to gross operating surplus after the deduction of depreciation allowances; for financial enterprises it is the net income after depreciation allowances, interest paid, and net current expenditure on goods and services by government banks are deducted from total receipts of interest and non-dwelling rent. Depreciation allowances deducted in arriving at the income of public trading enterprises are those shown in their published accounts, except in the case of enterprises whose accounts are included in the Commonwealth or State budgets and are analysed on the basis of their cash accounts in which depreciation is not deducted. In particular, no amount is included for the Post Office or most railways, since cash accounts for these enterprises have been used.

Item 22. *Retained investment income of life insurance funds, etc.* Total dividends, interest, etc. received by life insurance and superannuation funds, less rent and interest paid, depreciation allowances, income tax and dividends payable.

Item 23. *Overseas grants, contributions and remittances.* All transfers to or from overseas on public authority or private account which are not payments for goods and services or payments of dividends, interest, etc.

Item 23*a*. *Personal remittances overseas.* Gifts of money by resident persons and private institutions, payments for sustenance, and transfers of emigrants' funds and legacies from Australia to overseas, together with the value of goods exported as personal effects and gifts.

Item 23*b*. *Personal remittances from overseas.* Gifts of money received from non-resident persons and private institutions, receipts for sustenance, and transfers of immigrants' funds and legacies from overseas to Australia, together with the value of goods imported as personal effects and gifts.

Item 23*c*. *Public authority overseas grants.* Grants to, and payments made on behalf of, the Territory of Papua and New Guinea, and expenditure overseas in respect of technical assistance and relief under the Colombo Plan and United Nations projects. Payments to United Nations and other organisations due by virtue of membership of these organisations are included in net current expenditure on goods and services.

Item 24. *Personal saving.* The excess of personal income over the sum of personal consumption expenditure, interest paid, income tax payable, estate and gift duties paid, and remittances overseas. Personal saving is estimated as the balancing item in the personal current account. It includes saving through life insurance and superannuation funds (defined as premiums, etc. paid less claims, etc. received and administrative expenses of life insurance offices) and the increase in assets of marketing authorities. Personal saving may also take the form of increases in holdings of cash and net purchases of securities, the net increase in bank deposits less advances, the reduction in the outstanding advances of instalment credit companies to persons and unincorporated enterprises, and the increase in the equity of persons in dwellings and in capital equipment, buildings and stocks of unincorporated enterprises.

Item 25. *Cash benefits.* Current transfers to persons from public authorities in return for which no services are rendered or goods supplied. Principal components are scholarships; hospital, medical, pharmaceutical, maternity, sickness, and unemployment benefits; child endowment; widows', age, invalid, and repatriation pensions; and attendance money for waterside workers.

Item 26. *Grants towards private capital expenditure.* Grants to meet part of the costs of private capital expenditure, e.g. Commonwealth Home Savings grants, grants towards construction of science laboratories in private schools and of houses for aged persons, etc.

Item 27. *Public authorities surplus on current account.* The excess of current revenue, including income of public enterprises, over current outlay. Current outlay includes current expenditure on goods and services, as defined in item 7, and transfer payments (interest, cash benefits, subsidies, grants towards private capital expenditure, and overseas grants). The surplus is transferred to the capital account where it is shown as part of total funds available for financing capital outlay.

Item 28. *Overseas balance on current account.* The excess of payments to the rest of the world on current account over receipts from the rest of the world on current account. In the national capital account it is shown divided into drawings on Australia's overseas monetary reserves (item 28*a*) and net apparent capital inflow (item 28*b*).

CHAPTER 19

PRIVATE FINANCE

Further information on the subjects dealt with in this chapter is contained in the annual bulletins *Banking and Currency* and *Insurance and Other Private Finance*. Current information is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the monthly mimeographed statements *Banking Statistics* (bulletin and preliminary statement), *Savings Bank Statistics* (bulletin and preliminary statement), *Australian Life Insurance Statistics*, and *Finance Companies: Australia*. The annual mimeographed bulletin *Australian Fire, Marine and General Insurance Statistics* contains the latest information available on the subject of general insurance. Other relevant mimeographed statements are: *Finance Companies: July* 1964 *to December* 1966; *Instalment Credit for Retail Sales; Unit Trusts, Land Trusts, and Mutual Funds; New Capital Raisings by Companies in Australia;* and *Capital and Maintenance Expenditure by Private Business in Australia*—quarterly; *Government Pension and Superannuation Schemes*, 1964–65; *Survey of Private Pension and Retiring Allowance Schemes*, 1962–63; *Survey of Selected Large Private Pension Funds*, 1964–65; and *Registered Building Societies*, 1964–65. Preliminary monthly statements *Instalment Credit for Retail Sales* and preliminary estimates of New Capital Raisings are also issued.

CURRENCY

Until 13 February 1966 Australian currency was based on the British unit, which is the pound (£) divided into 20 shillings (s) each of 12 pence (d). A decimal currency system was introduced in Australia on 14 February 1966 based on a major unit—the dollar—equal to ten shillings in the old currency. The minor unit—the cent—is one-hundredth part of the major unit and is equal to 1.2 pence in the old currency. Decimal notes and coins became legal tender from 14 February 1966. The par value of the Australian dollar, under the terms of the International Monetary Fund, was established at 0.99531 grams of fine gold.

The official changeover arrangements provided for a dual currency and for a transition period of eighteen months to two years following the changeover. From the changeover day all cheques and other bills of exchange and all promissory notes have to be executed in dollars and cents. During the transition period, however, contracts and other monetary transactions might be arranged in terms of either £ s. d. or $ c.

After the end of the transition period (1 August 1967 fixed by proclamation) contracts and other documents will have to be made out in terms of $ c. All references to £ s. d. in existing contracts, agreements, etc. with continuing effect will be converted automatically into their exact equivalents in decimal currency. Payments of amounts owing in £ s. d. will be made in $ c on a nearest-cent basis according to the conversion table shown in the Currency Act (*see* Year Book No. 52, *page* xvi. Threepences, pennies and halfpennies will be legal tender only in multiples of sixpence. All £ s. d. notes and coins from sixpence upwards will continue to be legal tender on the same basis as decimal notes and coins.

Historical notes of the arrangements for the introduction of decimal currency and the relationship between £ s. d. and $ c are published in Year Book No. 52, pages 671–4.

Australian coinage

Prior to Federation in 1901 the coins circulating throughout Australia were many and varied. For a full account of the history of pre-Federation coinage *see* Year Book, No. 51, 1965, pages 812–14. After Federation the only coins which were legal tender within Australia until 1909 were English coins.

The Constitution in 1901 gave the Commonwealth Parliament power to make laws with respect to coinage and in 1909 the Coinage Act was passed prescribing the standard weight and fineness of coins. The first coins exclusively for circulation in Australia—silver (925 fine) florins, shillings, sixpences and threepences—were minted in 1910 by the Royal Mint, London, followed by bronze coins in 1911. The Melbourne Branch of the Royal Mint produced in 1916 the first Commonwealth coins (pence) minted in Australia. The Sydney Branch of the Royal Mint commenced production of halfpennies in 1919 and in 1922 the Perth Branch minted its first pennies.

The Commonwealth Treasury administered the Coinage Act which was repealed and replaced by the *Currency Act* 1965. All coins produced under authority of these two Acts have been ordered by the Treasury.

Australian mints

Brief historical notes relating to Australian mints and details of pre-decimal Australian coins obtained from each mint to 30 June 1965 are given in Year Book No. 52, page 675.

The construction of the Royal Australian Mint in Canberra provided the Commonwealth Government for the first time with facilities for minting its own coinage. Production at the Royal Australian Mint was initially restricted to the new coins for issue on the changeover to decimal currency on 14 February 1966. It was estimated that a minimum of 1,700 million pre-decimal coins needed to be replaced by the new coinage. The critical coins were the bronze one cent and two cents to replace the threepence, penny and halfpenny which had no counterparts in the decimal range. The intial capacity of the Royal Australian Mint was directed to the production of bronze coin with some capacity being directed to the fifty cent silver coin. Bronze decimal coins were also produced at the Melbourne and Perth branches of the Royal Mint, and the Royal Mint, London, contracted to produce 30 million each of the cupro-nickel five, ten and twenty cent denominations for issue in February 1966. All Australia's coin requirements are now met by the Royal Australian Mint, with the Melbourne and Perth branches of the Royal Mint providing some bronze coins on contract to the Commonwealth Treasury.

Coins in circulation

Brief historical notes relating to the Australian pre-decimal coinage are given in Year Book No. 37, pages 557 and 558. For weight, metal composition, etc., of Australian pre-decimal coins in circulation *see* Year Book No. 39, page 697. The silver coins issued prior to July 1947 had a millesimal fineness of 925 (thirty-seven fortieths silver and three-fortieths copper) and those issued after 1 July 1947 (dated 1946 and later) had a millesimal fineness of 500 (one-half silver and one-half other metals).

The net issues of Australian pre-decimal silver and bornze coins from 1910 to 30 June 1966 were: crown (5s.), $551,000; florin (2s.), $47,065,000; shilling (1s.), $21,522,000; sixpence (6d.), $15,975,000; threepence (3d.), $13,010,000; total silver coin, $97,992,000; penny (1d.) $5,597,000; half-penny (½d.), $1,342,000; total bronze coin, $6,938,000. Except in the total, no allowance has been made for $131,000 worth of damaged silver coin, for which denominations are not available, withdrawn since 1910. Australian decimal coin issued from 14 February 1966 to 30 June 1966 was: 50 cents, $11,299,000; 20 cents, $5,835,000; 10 cents, $2,924,000; 5 cents, $1,451,000; 2 cents, $4,051,000; 1 cent, $3,043,000; total $28,603,000.

Profits on pre-decimal coinage

Australian coins are token coins and, as the face value of the coins is greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table details are given of the value of pre-decimal coins issued, the cost of bullion, the cost of minting, and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1961–62 to 1965–66.

AUSTRALIAN PRE-DECIMAL SILVER AND BRONZE COINS: PROFITS FROM ISSUE 1961-62 TO 1965-66

($'000)

Year	Face value of coin issued (*a*)	Cost of bullion	Gross profit	Cost of minting and sundry charges	Net profit
Silver coin—					
1961–62 . .	7,345	5,318	2,028	536	1,492
1962–63 . .	5,515	4,536	979	526	453
1963–64 . .	4,191	4,142	49	335	−287
1964–65 . .	2,209	2,250	−41	107	−148
1965–66 . .	..	..	..	..	..
Bronze coin—					
1961–62 . .	287	204	83	396	−313
1962–63 . .	340	242	98	340	−242
1963–64 . .	868	611	257	683	−426
1964–65 . .	445	345	100	380	−281
1965–66 . .	83	98	−15	95	−110
All coin—					
1961–62 . .	7,632	5,521	2,111	932	1,179
1962–63 . .	5,855	4,778	1,077	866	212
1963–64 . .	5,059	4,753	306	1,018	−712
1964–65 . .	2,654	2,595	58	487	−429
1965–66 . .	83	98	−15	95	−110

(*a*) Includes selected and proof pieces.
Minus sign (—) denotes a loss.

Gold receipts and issues

Since early in the 1939–45 War all gold has been acquired by the Reserve Bank, and the export and use of gold has been subject to regulation by the Commonwealth Government. All trading banks in Australia, Deputy Master of the branch of the Royal Mint in Perth, and three private refining companies are authorised under the Banking (Gold) Regulations to deal in gold on behalf of the Reserve Bank. The Melbourne Mint ceased to deal in gold in 1964. The Royal Australian Mint at Canberra is not authorised to receive and issue gold.

Details of the production of gold, subsidy payable, etc. are given in the chapter Mineral Industry.

Price of gold

The following table shows the average prices of gold, the average values of the sovereign's gold content in London, and the sovereign's Reserve Bank buying price in Australia for the years 1961–62 to 1965–66. The average price of gold in Australia is fixed by the Reserve Bank and at present reflects the parity value of Australian currency established in conformity with the *International Monetary Agreements Act* 1947.

PRICE OF GOLD: LONDON AND AUSTRALIA, 1961-62 TO 1965-66

Year	London		Australia		
	Average price per fine oz	Average value of sovereign's gold content	Average price per fine oz	Sovereign	
				Reserve Bank buying price	Equivalent to a premium on mint par value of—
	£stg s. d.	£stg s. d.	$	$	per cent
1961–62 . .	12 10 1	2 18 10	31.25	7.25	267.8
1962–63 . .	12 10 6	2 19 0	31.25	7.25	267.8
1963–64 . .	12 10 9	2 19 1	31.25	7.25	267.8
1964–65 . .	12 11 8	2 19 3	31.25	7.25	267.8
1965–66 . .	12 11 8	2 19 3	31.25	7.25	267.8

In December 1951 arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats ($^{11}/_{12}$ths).

The average prices per fine ounce in Australian currency obtained for gold exported under this scheme for each month during 1965–66 for which there were sales were: July, $31.452; August, $31.458; September, $31.527; October, $31.427; November, $31.327; December, $31.315; January, $31.326; February, $31.311; March, $31.343; April, $31.414; May, $31.437 and June, $31.425.

The Australian note issue

In 1901 notes in circulation in Australia consisted of bank notes payable in gold coin and issued by the trading banks, and Queensland Treasury notes. Bank notes circulated in all States except Queensland, but were not legal tender except for a brief period in 1893 in New South Wales. There were, however, some restrictions on their issue or other provisions for the protection of the public Queensland Treasury notes were issued by the Queensland Government and were legal tender in that State. Notes of both categories continued in circulation until 1910, when the *Australian Notes Act* 1910 and *Bank Notes Tax Act* 1910 were passed by the Commonwealth Parliament. The *Australian Notes Act* 1910 prohibited the circulation of State notes as money and the *Bank Notes Tax Act* 1910 imposed a tax of ten per cent per annum on 'all bank notes issued or re-issued by any bank in the Commonwealth after the commencement of this Act, and not redeemed'. These Acts put an end to the issue of notes by the trading banks and the Queensland Treasury. The *Reserve Bank Act* 1959 expressly prohibits persons, including States, from issuing bills or notes payable to bearer on demand and intended for circulation.

The *Reserve Bank Act* 1965 authorised the Bank to issue Australian notes in denominations of $1, $2, $5, $10, $20, or $50, or in any other denomination that the Treasurer, by instrument of writing published in the Gazette, determines. The Act provided that each note of the previous currency should have the value in dollar currency set out in the following table:

10s.	$1
£1	$2
£5	$10
£10	$20
£20	$40
£50	$100
£100	$200
£1,000	$2,000

The Act came into force on 14 February 1966, and notes of $1, $2, $10, and $20 denominations were issued forthwith as legal tender to any amount throughout Australia. A description of these notes is published in Year Book No. 52, page 678.

On 29 May 1967 $5 notes were issued throughout Australia and the Territory of Papua and New Guinea. The $5 note was designed by Gordon Andrews, the designer of the other dollar notes already in circulation. On the front is a portrait of Sir Joseph Banks (1743–1820), with an assemblage of Australian flora. Sir Joseph Banks accompanied Captain James Cook on his voyage to Australia in 1770, personally meeting the cost of the scientific equipment and staff that were with him. He collected and wrote about Australian flora and over a long period enthusiastically encouraged and financed others to carry out scientific investigations in Australia in a variety of fields. On the back Mrs Caroline Chisholm is portrayed against a background composed of illustrations of women and children of her time and of ships and Sydney streets of the period. Caroline Chisholm (1808–1877) was a pioneer in encouraging the migration of women and families from England to Australia. The $5 note, which measures 150-mm by 75-mm, is basically mauve in colour with the main features being overprinted in black. The paper contains a watermark portrait of Captain Cook and an embedded metal thread running down near the centre.

Gold reserve against the note issue

The *Australian Notes Act* 1910 provided that the Treasurer should hold, in gold coin, a reserve of an amount not less than one-fourth of the notes issued up to $14,000,000 and an amount equal to the excess over $14,000,000. In 1911 this provision was amended and the Treasurer was required only to hold, in gold coin, an amount not less than one-fourth of the total amount of Australian notes issued. In June 1931, to permit further shipments of gold to meet short-term obligations in London, an amendment to the Commonwealth Bank Act provided for the reduction of the gold reserve for the two years ended 30 June 1933 to not less than 15 per cent. The reserve was to be increased, by graduated steps, to 25 per cent by 30 June 1935. In May 1932 a further amendment to the Commonwealth Bank Act provided that the reserve might be held 'in gold or in English sterling or partly in gold and partly in English sterling'. English sterling was defined as 'currency which is legal tender in the United Kingdom, and included (*a*) balances standing to the credit of the Bank at the Bank of England or at any other of its bankers in London; (*b*) Bills of Exchange or advances secured by Bills of Exchange which (i) are payable in the United Kingdom in currency which is legal tender in the United Kingdom; (ii) will mature in not more than three months, and the security for the payment of which bills is, in the opinion of the Bank, satisfactory; and (*c*) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months'.

The statutory reserve against the note issue was abolished by the *Commonwealth Bank Act* 1945 which provided that the assets of the Note Issue Department should be held in gold, on deposit with any bank, or in securities of the Government of the United Kingdom or of the Commonwealth or a State. This provision was continued in the *Reserve Bank Act* 1959.

Australian notes in circulation

AUSTRALIAN NOTES IN CIRCULATION, JUNE 1962 TO 1966
($'000)

Denomination	Last Wednesday in June—				
	1962	1963	1964	1965	1966
$1 and 10s.	25,150	26,276	27,550	28,396	32,204
$2 and £1	135,880	138,104	141,290	143,308	138,164
$10 and £5	379,584	386,136	390,728	392,980	369,247
$20 and £10	307,136	310,578	304,964	297,479	309,713
£20	4	4	4	2	2
£50	60	58	56	45	43
£100	72	64	62	41	41
£1,000	7,680	8,224	5,656	164	..
Held by banks	*117,280*	*125,938*	*133,710*	*138,783*	*154,117*
Held by public	*738,286*	*743,506*	*736,600*	*723,631*	*695,298*
Total	**855,566**	**869,444**	**870,310**	**862,414**	**849,414**

Reserve Bank—Note Issue Department

The following statement shows particulars of liabilities and assets of the Note Issue Department of the Reserve Bank as at 30 June 1965 and 1966.

RESERVE BANK OF AUSTRALIA: NOTE ISSUE DEPARTMENT LIABILITIES AND ASSETS, 30 JUNE 1965 AND 1966
($ million)

Liabilities	1965	1966	Assets	1965	1966
Notes on issue(*a*)	862.4	835.3	Gold and balances held abroad (including money at short call)	381.1	435.0
Special reserve—Premium on gold sold	9.5	9.5	Other overseas securities	174.1	134.8
Other liabilities(*a*)	21.3	21.5	Government securities (including Commonwealth Treasury bills)	337.8	296.2
			Other assets	0.2	0.2
Total	**893.2**	**866.2**	Total	**893.2**	**866.2**

(*a*) Notes of a denomination not exceeding one pound which have been on issue for more than twenty years and notes of a denomination exceeding one pound which have been on issue for more than forty years are not included in the item Notes on issue but are included in the item Other liabilities.

Until June 1951 all profits of the Note Issue Department, with the exception of $4,000,000 and $2,400,000 paid to the capital accounts of the Rural Credits Department and Mortgage Bank Department respectively, were paid to the Commonwealth Consolidated Revenue Fund. For the years 1951–52 to 1955–56 the profits were distributed as follows: (*a*) $1,000,000 per annum to the capital accounts of the Commonwealth Trading Bank (prior to 3 December 1953 the General Banking Division of the Commonwealth Bank) and the several departments of the Commonwealth Bank, distributed two-sevenths each to the Commonwealth Trading Bank, Mortgage Bank Department and Industrial Finance Department and one-seventh to the Rural Credits Department, and (*b*) the balance to the Commonwealth Consolidated Revenue Fund. Since 1955–56 the profits have been paid to the Commonwealth Consolidated Revenue Fund. Profits of the Note Issue Department in 1965–66 amounted to $31,070,000.

Rates of exchange

In the following table the par of exchange (based on par values agreed with the International Monetary Fund) and average telegraphic transfer selling rates of exchange for Sydney on a number of overseas countries are shown. Generally, the averages, which are averages of daily quotations, are based on rates quoted by the Commonwealth Trading Bank. Where these were not available, rates used by the Department of Customs and Excise in converting import values to $A for purposes of calculating customs duty are shown.

OVERSEAS EXCHANGE RATES: PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC TRANSFER SELLING RATES FOR SYDNEY ON OVERSEAS COUNTRIES, 1965-66

Country	Basis of quotation	Australian decimal currency equivalents		Country	Basis of quotation	Australian decimal currency equivalents	
		Par of exchange (*a*)	Selling rate, 1965–66			Par of exchange (*a*)	Selling rate, 1965–66
Belgium	Francs to $A1	56.022	55.07	Japan	Yen to $A1	403.226	401.02
Canada	Dollars to $A1	1.211	1.1984	Netherlands	Guilders to $A1	4.054	4.004
Ceylon	Rupees to $A1	5.333	5.266	New Zealand	$A to £N.Z.100	248.294	249.08
				Norway	Kroner to $A1	8.000	7.92
China (mainland)	New Yuan to $A1	(*b*)	2.74	Pakistan	Rupees to $A1	5.333	5.284
China (Taiwan)	Dollars to $A1	(*c*)	44.70	Portugal	Escudos to $A1	32.200	31.92
Denmark	Kroner to $A1	7.736	7.66	Singapore	Dollars to $A1	3.429	3.395
Fiji	$A to £F100	224.226	226 00	South Africa	Rands to $A1	0.800	0.795
Finland	Markkas to $A1	3.584	3.59	Sweden	Kronor to $A1	5.794	5.724
France	Francs to $A1	5.529	5.436	Switzerland	Francs to $A1	(*b*)	4.800
				United Arab Republic	£E to $A1	0.390	0.478
Germany, Fed. Rep. of	Deutsche Marks to $A1	4.480	4.45	United Kingdom	$A to £Stg100	250.00	251.00
Hong Kong	Dollars to $A1	6.415	6.371				
India	Rupees to $A1	5.333	5.470	United States of America	Dollars to $A1	1.120	1.1130
Italy	Lire to $A1	700.00	692.00	U.S.S.R.	Roubles to $A1	(*b*)	1.004

(*a*) As at 30 June 1966, established under International Monetary Fund Agreement. (*b*) Not a member of the International Monetary Fund. (*c*) No par value established.

VOLUME OF MONEY

VOLUME OF MONEY: AUSTRALIA, JUNE 1962 TO 1966

(*Source:* Reserve Bank of Australia)

($ million)

June—	Notes and coin in hands of public	Deposits of public with all cheque-paying banks(*a*)		Deposits with all savings banks(*b*)	Total volume of money
		Current	Fixed		
1962	810	2,569	1,039	3,428	7,845
1963	818	2,646	1,147	3,906	8,517
1964	815	2,917	1,380	4,444	9,556
1965	814	2,977	1,688	4,858	10,337
1966	783	3,033	1,898	5,223	10,938
December(*c*) 1966	909	3,294	1,981	5,502	11,686

(*a*) Excludes Government and inter-bank deposits, but includes deposits of the public with the Reserve Bank. (*b*) Interpolated 'weekly average' based on end of month figures. (*c*) Excludes one Wednesday.

BANKING

The Australian banking system has developed along the lines of the British system with widespread branch banking conducted by relatively few banks.

Development since federation

With federation in 1901 the new Commonwealth Parliament was given power, under section 51 of the Commonwealth Constitution, to legislate with respect to 'Banking, other than State Banking, also State Banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'. In 1911 the Commonwealth entered the field of banking, with the establishment of the Commonwealth Bank of Australia, which conducted both trading bank and savings bank operations. A separate Commonwealth Savings Bank was established in 1928.

Central bank

Central banking functions of the Commonwealth Bank developed gradually over the years prior to and during the second world war. In November 1935 a Royal Commission was appointed by the Commonwealth Government to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report in July 1937, and a summary of the recommendations appears in Year Book No. 31, page 1010.

In 1945 the Commonwealth Government legislated to give full legal effect to the central banking functions already being exercised by the Commonwealth Bank of Australia and to regulate the banking system as a whole. The Commonwealth Bank of Australia further developed as mainly a central bank when from 3 December 1953 the Commonwealth Trading Bank of Australia was established to take over most of the general trading bank functions of the Commonwealth Bank of Australia.

Legislation in 1959 completed the separation of the trading banking and central banking functions of the Commonwealth Bank of Australia with the establishment of the Commonwealth Development Bank of Australia under the *Commonwealth Banks Act* 1959 to take over the Industrial Finance Department and Mortgage Bank Department of the Commonwealth Bank of Australia.

A new bank, the Reserve Bank of Australia, was established under the *Reserve Bank Act* 1959 as the nation's central bank to administer the provisions of a new banking Act (*Banking* 1959). A statutory corporation, The Commonwealth Banking Corporation, was set up under the *Commonwealth Banks Act* 1959 to control the Commonwealth Trading Bank of Australia, the Commonwealth Development Bank of Australia, and the Commonwealth Savings Bank of Australia.

Trading banks

Commercial banking in Australia is predominantly carried on by eight major trading banks. One of these banks is owned by the Commonwealth Government and seven are privately owned companies established by Act or Charter or incorporated under State or British law. Two of these private banks are owned by British interests. Since 1945 no new private trading banks may be established without the approval of the Commonwealth. State-owned trading banks operate in three States under State law and confine their activities to their own States. One small trading bank confines its operations to one city and three foreign banks operate on a restricted basis.

Term Loan Fund

Lending by trading banks is generally conducted on an overdraft basis. A departure from this practice followed discussions during 1961–62 involving the Commonwealth Government, the Reserve Bank and the major trading banks, which resulted in arrangements whereby the banks agreed to create a fund known as the Term Loan Fund, the resources of which would be employed to make loans for capital expenditure on production in the rural, industrial and (to a lesser extent) commercial fields and to finance exports. The loans would be made for fixed terms, varying usually between three and eight years.

Farm Development Loan Fund

Discussions in March 1966 between the Commonwealth Government, the Reserve Bank and the major trading banks resulted in the establishment of a fund known as the Farm Development Loan Fund, from which resources would be available to provide rural producers, particularly smaller producers, with greater access to medium and long-term finance.

Savings banks

Until 1956 savings bank operations were, apart from two small trustee banks in Tasmania, conducted by the Commonwealth Government and some State Governments. In January 1956 private savings banks were established as subsidiary companies by two of the private trading banks. By mid-1962 all the major private trading banks had established savings bank subsidiary companies.

Current legislation

Operations of banks and banking in Australia are currently governed by (i) Commonwealth legislation enacted in 1959 in respect of banking other than State banking, and (ii) State legislation relating to the incorporation of banks and management of State banks.

Commonwealth banking legislation

(*a*) The *Banking Act* 1959–1966 provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth. This Act, which replaced the *Banking Act* 1945–1953, was first assented to on 23 April 1959 and came into operation on 14 January

1960 as the *Banking Act* 1959. It was amended by the *Banking Act* 1965 and the *Statute Law Revision (Decimal Currency) Act* 1966 in order to make certain changes required by the change to decimal currency. It applies to all banks, including savings banks, operating in Australia or the Territories of the Commonwealth except State banks trading in their own State. The objects of the Act are: (i) to provide a legal framework uniform throughout Australia for regulating the banking system; (ii) to safeguard depositors of the banks from loss; (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (iv) to control the volume of credit in circulation and bank interest rates; (v) to mobilise and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the *Banking Act* 1959 is given in Year Book No. 46, pages 759–60.

(*b*) The *Reserve Bank Act* 1959–1966 provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue.

(*c*) The *Commonwealth Banks Act* 1959–1966 provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia, and Commonwealth Development Bank of Australia.

The Commonwealth Banking Corporation came into being on 14 January 1960. It is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. Under the *Banking Act* 1959–1966 the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

The Board of the Corporation consists of the Managing Director of the Corporation, the Deputy Managing Director, the Secretary to the Treasury, and eight other members appointed by the Governor-General of whom one is Chairman and another Deputy Chairman. In addition, there is an Executive Committee of the Board for each of the three separate banks. These Executive Committees are appointed by the Treasurer, after consultation with the Board, and are charged with taking such action as is necessary to ensure that effect is given by the respective banks to the policies laid down for them and to any directions given by the Board in relation to their affairs. Under the Board the Corporation is managed by the Managing Director and the Deputy Managing Director. Each of the three constituent banks of the Corporation has its own statutory functions and responsibilities and its separate identity within the framework of the Corporation. Each bank is managed by a General Manager under the Managing Director of the Corporation.

On pages 686–7 details are given of the assets and liabilities of the Commonwealth Development Bank. Details for the Commonwealth Savings Bank are shown on pages 708–10. Details for the Commonwealth Trading Bank are included in statistics of cheque-paying banks—Major Trading Banks, on pages 688–94.

State banking legislation

The State Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g. the Bank of New South Wales by Act of Council 1817, the Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a Companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the financial crisis of 1893. State banks, constituted under State Acts, transacting general banking business are The Rural Bank of New South Wales, the State Bank of South Australia, and The Rural and Industries Bank of Western Australia. State savings banks, constituted under State Acts, transacting savings bank business are The State Savings Bank of Victoria and The Savings Bank of South Australia (*see* pages 707–15).

Presentation of banking statistics

Because of the different purposes they serve in the Australian financial system, Australian banks have been divided for statistical purposes into the following four groups and a separate series is presented for each.

(i) *The Reserve Bank of Australia*. Statistics of the Central Banking Business, the Note Issue Department, and the Rural Credits Department are shown separately. (*See* pages 684–6).

(ii) *The Commonwealth Development Bank of Australia*. The prime purpose of this Bank is to assist in the development of worthwhile enterprises in the field of both primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. (*See* pages 686–7.)

(iii) *Cheque-paying banks–Major Trading Banks*. These comprise the Commonwealth Trading Bank of Australia, Australia and New Zealand Bank Ltd, The Bank of Adelaide, Bank of New South Wales, The Commercial Bank of Australia Ltd, The Commercial Banking Company of Sydney Ltd, The English, Scottish and Australian Bank Ltd, The National Bank of Australasia Ltd. (*See* pages 687–705.)

All cheque-paying banks. These comprise the major trading banks and the following banks—the Bank of China, Bank of New Zealand, The Brisbane Permanent Building and Banking Co. Ltd, Banque Nationale de Paris (formerly Comptoir Nationale d' Escompte de Paris), the General Bank Department of the Rural Bank of New South Wales, the State Bank of South Australia, and the Rural Department of the Rural and Industries Bank of Western Australia. (*See* pages 687 and 693–8.)

Australian cheque-paying banks (*see* pages 688–92) comprises all cheque-paying banks *except* the Bank of China, Bank of New Zealand and Banque Nationale de Paris.

(iv) *Savings Banks*. Savings banks operating at 30 June 1966 were—the Commonwealth Savings Bank of Australia, the Australia and New Zealand Savings Bank Ltd, the Bank of New South Wales Savings Bank Ltd, and the National Bank Savings Bank Ltd (in all States and Territories within and without Australia); The Bank of Adelaide Savings Bank Ltd (all States except Tasmania); The Commercial Savings Bank of Australia Ltd and the E.S. & A. Savings Bank Ltd (in all States and Territories within Australia), the C.B.C. Savings Bank Ltd (in all States and in the Australian Capital Territory); the State Savings Bank of Victoria, The Savings Bank of South Australia, the Savings Bank Division of The Rural and Industries Bank of Western Australia, and the two trustee banks, The Hobart Savings Bank and Launceston Bank for Savings. (*See* pages 707–16.)

Reserve Bank of Australia

The Reserve Bank of Australia, established under the *Reserve Bank Act* 1959, which came into operation on 14 January 1960, continued in existence the body corporate known as the Commonwealth Bank of Australia. An account of the progress and development of that bank is given in earlier issues of the Year Book (*see* No. 37, pages 570–2, and No. 45, pages 735–7).

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act* 1959–1966, which states:

> 'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act* 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,
>
> (*a*) the stability of the currency of Australia;
>
> (*b*) the maintenance of full employment in Australia; and
>
> (*c*) the economic prosperity and welfare of the people of Australia.'

In addition to its functions as a Central Bank, the Bank controls the Australian note issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Commonwealth and some of the States.

Management

Under the provisions of the *Reserve Bank Act* 1959–1966 the policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Central banking business

Under the powers it possessed under the *Commonwealth Bank Act* 1911–1943 and under its war-time powers under the National Security Regulations the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III. of the *Commonwealth Bank Act* 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, and these powers were carried through into the present Act constituting the Reserve Bank. Under the provisions of the *Reserve Bank Act* 1959–1966 the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14 January 1960 and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (*a*) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (*b*) the remainder shall be paid to the Commonwealth.

Note Issue Department

The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the *Reserve Bank Act* 1959–1966 the profits of the Note Issue Department are paid to the Commonwealth.

Rural Credits Department

The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the Bank, or other security associated with the production or marketing of primary produce. to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the *Reserve Bank Act* 1959–1966 the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14 January 1960, and $4,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (*a*) one half to the credit of the Rural Credits Department Reserve Fund and (*b*) one half to the credit of the Rural Credits Development Fund.

Reserve Bank liabilities and assets—all Departments

RESERVE BANK OF AUSTRALIA: LIABILITIES, 30 JUNE 1962 TO 1966

($ million)

30 June—	Capital and reserve funds	Development fund	Special reserve—premium on gold sold	Australian notes on issue	Deposits of trading banks		Deposits of saving banks	Other deposits, bills payable and other liabilities	Total
					Statutory Reserve Deposit Accounts	Other			
CENTRAL BANKING BUSINESS									
1962	48.2	..	..	..	387.9	175.0	320.2	315.5	1,246.9
1963	51.6	..	..	..	445.2	102.9	370.1	331.9	1,301.7
1964	56.5	..	..	..	676.3	101.8	432.3	327.9	1,594.8
1965	61.3	..	..	..	654.7	100.4	429.6	347.2	1,593.2
1966	65.3	..	..	..	471.9	130.2	418.6	351.6	1,437.6
NOTE ISSUE DEPARTMENT									
1962	..	..	9.5	848.4	..	..	..	20.8	878.7
1963	..	..	9.5	860.3	..	..	..	20.9	890.7
1964	..	..	9.5	856.1	..	..	..	21.1	886.7
1965	..	..	9.5	862.4	..	..	..	21.3	893.2
1966	..	..	9.5	835.3	..	..	..	21.5	866.2
RURAL CREDITS DEPARTMENT									
1962	13.3	0.5	..	..	..	..	..	105.2	119.0
1963	13.7	0.5	..	..	..	..	..	196.3	210.6
1964	14.2	0.6	..	..	..	..	..	116.1	130.9
1965	14.7	0.6	..	..	..	..	..	227.7	243.1
1966	15.3	0.7	..	..	..	..	..	158.7	174.7
TOTAL(*a*)									
1962	61.5	0.5	9.5	848.4	387.9	175.0	320.2	332.7	2,155.0
1963	65.3	0.5	9.5	860.3	445.2	102.9	370.1	338.4	2,217.7
1964	70.8	0.6	9.5	856.1	676.3	101.8	432.3	341.1	2,509.0
1965	76.1	0.6	9.5	862.4	654.7	100.4	429.6	362.4	2,515.6
1966	80.7	0.7	9.5	835.3	471.9	130.2	418.6	370.3	2,335.8

(*a*) Inter-departmental accounts have been offset.

RESERVE BANK OF AUSTRALIA: ASSETS, 30 JUNE 1962 TO 1966

($ million)

30 June—	Gold and balances held abroad (*a*)	Other overseas securities	Australian notes, coin	Australian Government securities (*b*)	Cheques and bills of other banks	Loans, advances, bills discounted, all other assets(*c*)	Bank premises (*d*)	Bills receivable and remittances in transit	Total
CENTRAL BANKING BUSINESS									
1962 .	547.1	37.7	11.4	523.0	4.2	101.3	6.5	15.5	1,246.9
1963 .	592.7	35.5	14.0	431.6	4.5	203.6	10.0	9.8	1,301.7
1964 .	866.1	122.6	12.7	411.6	5.5	131.6	15.1	29.6	1,594.8
1965 .	506.3	237.1	10.1	464.4	32.6	277.1	22.4	43.1	1,593.2
1966 .	551.5	171.3	24.0	392.2	15.7	220.4	29.1	33.5	1,437.6
NOTE ISSUE DEPARTMENT									
1962 .	442.7	30.0	..	405.9	..	0.1	..	..	878.7
1963 .	500.0	31.9	..	358.7	..	0.1	..	..	890.7
1964 .	546.2	77.1	..	263.3	..	0.1	..	..	886.7
1965 .	381.1	174.1	..	337.8	..	0.2	..	..	893.2
1966 .	435.0	134.8	..	296.2	..	0.2	..	..	866.2
RURAL CREDITS DEPARTMENT									
1962 .	..	..	..	..	..	119.0	..	..	119.0
1963 .	..	..	..	..	..	210.6	..	..	210.6
1964 .	..	..	..	..	..	130.9	..	..	130.9
1965 .	..	..	..	..	..	243.1	..	..	243.1
1966 .	..	..	..	..	..	174.7	..	..	174.7
TOTAL(*e*)									
1962 .	989.9	67.7	11.4	929.0	4.2	130.9	6.5	15.5	2,155.0
1963 .	1,092.7	67.4	14.0	790.3	4.5	229.0	10.0	9.8	2,217.7
1964 .	1,412.3	199.6	12.7	675.0	5.5	159.1	15.1	29.6	2,509.0
1965 .	887.3	411.3	10.1	802.3	32.6	306.5	22.4	43.1	2,515.6
1966 .	986.5	306.1	24.0	688.5	15.7	252.4	29.1	33.5	2,335.8

(*a*) Includes currency at short call. (*b*) Includes Treasury bills and Treasury notes—prior to July 1962, Treasury bills and seasonal securities, the latter securities being replaced by Treasury notes. (*c*) After deducting provision for debts considered bad or doubtful. (*d*) At cost, less amounts written off. (*e*) Inter-departmental accounts have been offset.

Reserve Bank profits

RESERVE BANK OF AUSTRALIA: NET PROFITS 1961-62 TO 1965-66

($ million)

Year	Central Banking Business	Note Issue Department	Rural Credits Department	Total
1961–62 . .	13.3	31.5	0.9	45.8
1962–63 . .	6.7	25.6	0.9	33.2
1963–64 . .	10.0	27.0	1.0	37.9
1964–65 . .	15.3	30.5	1.0	46.8
1965–66 . .	8.7	31.1	1.2	41.0

RESERVE BANK OF AUSTRALIA: DISTRIBUTION OF PROFITS 1961-62 TO 1965-66

($ million)

Year	Total net profits	Distributed to—			
		Commonwealth of Australia	Reserve Bank Reserve fund	Rural Credits Department	
				Reserve fund	Development fund
1961–62 . . .	45.8	40.5	4.4	0.5	0.5
1962–63 . . .	33.2	28.9	3.4	0.4	0.4
1963–64 . . .	37.9	32.0	5.0	0.5	0.5
1964–65 . . .	46.8	41.0	4.8	0.5	0.5
1965–66 . . .	41.0	35.8	4.0	0.6	0.6

Commonwealth Development Bank of Australia

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act* 1959 and commenced operations on 14 January 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act the Bank is authorised to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries ,which would otherwise be nuable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation, and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bnak and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14 January 1960, $10,000,000 provided by the Reserve Bank, $20,000,000 appropriated from the Consolidated Revenue Fund in 1961–62 by the *Commonwealth Banks Act* 1961 and the *Commonwealth Banks Act* 1962, $10,000,000 appropriated in 1963–64 by the *Commonwealth Banks Act* 1963, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund.

Liabilities and assets

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: LIABILITIES 30 JUNE 1962 TO 1966

($ million)

30 June—	Capital	Reserve fund	Balances due to other banks	Deposits, bills payable, all other liabilities	Total
1962 . . .	51.7	13.1	29.1	18.5	112.4
1963 . . .	51.7	14.9	28.2	20.2	115.0
1964 . . .	61.7	16.8	27.2	22.9	128.6
1965 . . .	61.7	19.0	45.0	25.1	150.8
1966 . . .	61.7	21.2	65.9	27.8	176.6

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: ASSETS 30 JUNE 1962 TO 1966

($ million)

30 June—	Coin, bullion, notes and cash at bankers	Australian public securities (incl. Treasury bills)	Other securities	Loans to authorised dealers in short-term money market	Cheques and bills of other banks	Loans, advances and bills discounted	All other assets	Total
1962 . .	0.7	12.8	0.7	1.0	0.6	96.3	0.4	112.4
1963 . .	0.8	5.3	0.4	0.4	0.8	106.9	0.3	115.0
1964 . .	0.6	3.0	0.4	..	0.9	123.4	0.4	128.6
1965 . .	0.3	1.2	0.4	0.7	1.0	146.8	0.5	150.8
1966 . .	0.5	1.2	0.3	0.4	1.1	172.6	0.6	176.6

Profit and loss

The profit and loss of the Commonwealth Development Bank for the years 1961–62 to 1965–66, is shown in the following table. The net profit was appropriated to the Commonwealth Development Bank Reserve Fund.

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA PROFIT AND LOSS, 1961–62 TO 1965–66

($ million)

Year	Discount and interest earned, etc.(*a*)	Expenses (*b*)	Taxes and payments in lieu of taxes	Net Profit
1961–62 .	5.2	3.8	..	1.4
1962–63 .	5.6	3.8	..	1.8
1963–64 .	6.1	4.1	..	1.9
1964–65 .	7.2	5.0	0.1	2.1
1965–66 .	8.7	6.5	0.1	2.2

(*a*) Discount and interest earned, net exchange commissions and other items (including transfers from contingencies accounts)—after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets, and losses on realisation of assets and transfers to the credit of contingencies accounts (out of which accounts provision for all bad and doubtful debts has been made). (*b*) Includes proportion of expenses of Commonwealth Banking Corporation attributable to the Development Bank.

Cheque-paying banks

Banks transacting business in Australia

At 30 June 1966 the fifteen banks operating in Australia transacted all classes of banking business at 4,544 branches and 1,746 agencies. The major trading banks have branches throughout Australia. The Rural Bank of New South Wales, the State Bank of South Australia, and The Rural and Industries Bank of Western Australia, being State Government banks, have branches only in their respective States. The Brisbane Permanent Building and Banking Co. Ltd. transacts business only in Brisbane. The remaining three banks are branches of overseas banks.

CHEQUE-PAYING BANKS: NUMBER OF BRANCHES(*a*) STATES AND TERRITORIES, 30 JUNE 1966

Banks	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Major Trading Banks . .	1,544	1,192	678	398	344	100	13	32	4,301
Other cheque-paying banks .	153	2	2	35	51	..	..	..	243
All cheque-paying banks—									
Metropolitan area . .	773	670	214	203	182	30	4	27	2,103
Elsewhere . . .	924	524	466	230	213	70	9	5	2,441
Total	**1,697**	**1,194**	**680**	**433**	**395**	**100**	**13**	**32**	**4,544**

(*a*) Includes head offices. Excludes 1,746 agencies.

Australian cheque-paying banks—balance sheets

Liabilities and assets of individual Australian cheque-paying banks at balance dates in 1966 (and corresponding totals for these banks in 1965) are shown in the following tables. The information for the Major Trading Banks and The Brisbane Permanent Building and Banking Co. Ltd. has been obtained from the annual returns lodged with the Commonwealth Statistician under Section 52 of the *Banking Act* 1959–1966, whereas that for the other banks has been compiled from information published in their annual reports.

AUSTRALIAN CHEQUE-PAYING BANKS: LIABILITIES(*a*), 1965 AND 1966

($'000)

Bank	Paid-up capital	Reserve funds (used in business of bank)	Final dividend proposed	Balance of profit and loss account	Total shareholders' funds or total capital and reserve funds	Balances due to other banks	Deposits, bills payable and other liabilities (*b*)	Total
1966—								
Major Trading Banks—								
Commonwealth Trading Bank of Australia .	(*c*)14,858	12,295	..	..	27,153	8,754	1,130,223	1,166,130
Australia and New Zealand Bank Ltd. . .	38,654	26,819	2,706	4,403	72,582	74,349	1,210,106	1,357,037
The Bank of Adelaide .	5,600	5,500	280	556	11,936	1,622	92,942	106,500
Bank of New South Wales	52,680	38,890	2,634	3,992	98,196	26,608	1,607,431	1,732,235
The Commercial Bank of Australia Ltd. . .	17,658	10,550	1,109	1,035	30,352	8,585	611,894	650,830
The Commercial Banking Co. of Sydney Ltd. .	17,000	15,128	850	1,327	34,305	13,096	584,992	632,392
The English, Scottish and Australian Bank Ltd. .	17,570	11,672	1,054	2,091	32,387	543	459,745	492,674
The National Bank of Australasia Ltd. . .	25,223	18,000	1,261	1,976	46,459	3,999	912,813	963,271
The Queensland National Bank Ltd. (in vol. liq.)(*d*)	..	..	..	61	61	..	134	195
Total, Major Trading Banks . . .	*189,243*	*138,853*	*9,894*	*15,440*	*353,431*	*137,555*	*6,610,279*	*7,101,265*
Other banks—								
The Brisbane Permanent Building and Banking Co. Ltd. . . .	2,500	1,025	100	142	3,767	..	8,488	12,255
The Rural Bank of New South Wales (General Bank Department) .	(*e*)18,400	(*f*)34,517	..	..	52,917	..	255,736	308,653
State Bank of South Australia	(*g*)13,985	6,070	..	..	20,055	..	(*h*)93,996	114,051
The Rural and Industries Bank of Western Australia (Rural Department)	(*i*) 22,230	2,140	..	..	24,370	..	(*j*) 84,720	109,090
Total, other banks .	*57,115*	*43,752*	*100*	*142*	*101,109*	..	*442,940*	*544,049*
Total, all banks, 1966 .	**246,358**	**182,605**	**9,994**	**15,582**	**454,540**	**137,555**	**7,053,219**	**7,645,314**
Total, all banks, 1965 .	**238,817**	**171,070**	**7,599**	**14,870**	**432,355**	**102,557**	**6,607,401**	**7,142,314**

(*a*) For dates of balance-sheets *see* table on page 691. (*b*) Includes provision for contingencies. (*c*) Amount specified as capital in the *Commonwealth Banks Act* 1959. (*d*) This bank is in the process of liquidation consequent upon the amalgamation of its business with The National Bank of Australasia Ltd. (*e*) Inscribed stock and debentures issued for capital purposes. (*f*) Includes special reserve built up from share of profits of the Commonwealth Savings Bank in New South Wales. (*g*) Capital provided by State Government of South Australia. (*h*) Includes $55,338,450 of advances by State Treasurer to Home Builders' Fund. (*i*) Capital provided by State Government of Western Australia. The Sinking Fund established for redemption of capital has been deducted. (*j*) Includes Savings Bank deposits, $37,817,500.

AUSTRALIAN CHEQUE-PAYING BANKS: ASSETS(*a*), 1965 AND 1966

($'000)

Bank	Coin, bullion, notes and cash at Reserve Bank	Money at short call overseas	Australian public securities			Other public securities	Other securities	Loans to authorised dealers in short-term money market
			Commonwealth Government		Local and semi-govt. authorities			
			Treasury bills and notes	Other securities				
1966—								
Major Trading Banks—								
Commonwealth Trading Bank of Australia . .	31,203	8,625	7,982	259,133	11,761	710	4,440	11,050
Australia and New Zealand Bank Ltd. . .	43,082	13,680	24,759	118,245	..	33,359	5,299	19,761
The Bank of Adelaide . .	3,910	1,275	300	12,821	..	..	4,265	2,000
Bank of New South Wales . .	38,353	7,125	12,111	290,007	249	5,768	25,152	8,670
The Commercial Bank of Australia Ltd. . .	25,239	3,813	1,500	83,082	877	2,790	8,505	11,000
The Commercial Banking Co. of Sydney Ltd. . .	13,101	3,750	..	89,262	..	..	11,884	7,250
The English, Scottish and Australian Bank Ltd. . .	18,260	4,518	3,145	70,257	..	1,191	8,415	4,700
The National Bank of Australasia Ltd. . .	20,734	3,363	11,290	153,530	..	3,234	9,476	15,775
The Queensland National Bank Ltd. (in voluntary liquidation)(*c*)	..	..	..	..	..	..	..	..
Total, Major Trading Banks .	*193,882*	*46,148*	*61,088*	*1076338*	*12,887*	*47,053*	*77,435*	*80,206*
Other banks—								
The Brisbane Permanent Building and Banking Co. Ltd. . .	164	..	..	1,128	13	..	489	300
The Rural Bank of New South Wales (General Bank Department) . .	9,981	..	..	44,086	1,315	..	..	26,322
State Bank of South Australia .	1,517	..	..	6,741	..	..	6,414	..
The Rural and Industries Bank of Western Australia (Rural Department)(*f*) . .	(*g*)6,048	..	..	40,439	11,837	..	..	..
Total, other banks . .	*17,710*	..	..	*92,394*	*13,165*	..	*6,903*	*26,622*
Total, all banks, 1966 . .	211,592	46,148	61,088	1168732	26,052	47,053	84,339	106,828
Total, all banks, 1965 . .	250,439	47,188	67,531	961,421	21,096	54,904	74,050	86,459

For footnotes *see* page 690.

AUSTRALIAN CHEQUE-PAYING BANKS: ASSETS(*a*), 1965 AND 1966—*continued*

($'000)

Bank	Statutory Reserve Deposit Account with Reserve Bank	Cheques and bills of, and balances with and due from, other banks	Loans(*b*) advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1966—							
Major Trading Banks—							
Commonwealth Trading Bank of Australia	85,691	32,336	492,888	10,342	200,624	9,343	1,166,130
Australia and New Zealand Bank Ltd.	64,247	94,579	643,144	29,379	265,245	2,261	1,357,037
The Bank of Adelaide . . .	7,623	7,780	54,883	4,168	6,032	1,443	106,500
Bank of New South Wales . .	112,323	110,361	805,795	29,600	281,891	4,830	1,732,235
The Commercial Bank of Australia Ltd.	44,803	35,786	354,848	16,653	59,641	2,293	650,830
The Commercial Banking Co. of Sydney Ltd.	46,305	35,513	302,674	15,060	99,107	8,486	632,392
The English, Scottish and Australian Bank Ltd.	37,588	36,400	216,841	14,403	73,574	3,381	492,674
The National Bank of Australasia Ltd.	70,738	35,343	431,752	24,554	152,021	31,461	963,271
The Queensland National Bank Ltd. (in voluntary liquidation)(*c*) .	..	(*d*) 195	..	..	..	..	195
Total, Major Trading Banks .	*469,318*	*388,293*	*3,302,825*	*144,158*	*1,138,135*	*63,498*	*7,101,265*
Other banks—							
The Brisbane Permanent Building and Banking Co. Ltd. . .	143	1,243	8,612	150	..	13	12,255
The Rural Bank of New South Wales (General Bank Department)	..	9,453	191,346	12,592	9,167	4,390	308,653
State Bank of South Australia .	..	614	(*e*) 92,780	1,491	2,907	1,586	114,051
The Rural and Industries Bank of Western Australia (Rural Department)(*f*)	..	(*h*)	44,480	3,540	2,746	..	109,090
Total, other banks . . .	*143*	*11,310*	*337,218*	*17,773*	*14,820*	*5,989*	*544,049*
Total, all banks, 1966 . .	469,461	399,603	3,640,043	161,932	1,152,955	69,487	7,645,314
Total, all banks, 1965 . .	648,056	287,997	3,392,937	152,130	1,033,414	64,691	7,142,314

(*a*) For dates of balance-sheets *see* table on page 691. (*b*) Other than loans to authorised dealers in the short-term money market. (*c*) *See* footnote (*d*), on page 688. (*d*) Inter-bank balance with The National Bank of Australasia Ltd. (*e*) Includes $55,285,620 advances under extended terms—Home Builders' Fund. (*f*) Includes assets held against Savings Bank deposits of $37,817,500. (*g*) Includes accounts with State Treasury. (*h*) Included with Coin, bullion, notes and cash at Reserve Bank.

Australian cheque-paying banks—profit and loss accounts

Details of the profit and loss accounts and the appropriation of profits of individual Australian cheque-paying banks for 1966 are shown below (with corresponding totals for 1965).

AUSTRALIAN CHEQUE-PAYING BANKS: PROFIT AND LOSS, 1965 AND 1966
($'000)

Bank	Year ended	Net earnings (*a*)	Expenses (*b*)	Income, land and other taxes and payments in lieu of taxes	Net profit
1966—					
Major Trading Banks—					
Commonwealth Trading Bank of Australia	30.6.66	40,227	35,939	1,737	2,550
Australia and New Zealand Bank Ltd.	30.9.66	53,702	43,193	5,256	5,253
The Bank of Adelaide	30.9.66	5,341	4,436	264	641
Bank of New South Wales	30.9.66	67,196	53,647	6,294	7,255
The Commercial Bank of Australia Ltd.	30.6.66	24,050	20,102	2,177	1,771
The Commercial Banking Co. of Sydney Ltd.	30.6.66	21,540	17,033	1,944	2,563
The English, Scottish and Australian Bank Ltd.	30.6.66	24,084	19,819	2,332	1,934
The National Bank of Australasia Ltd.	30.9.66	31,279	26,083	2,342	2,855
The Queensland National Bank Ltd. (in voluntary liquidation)	30.9.66	..	..	..	..
Total, Major Trading Banks	..	*267,419*	*220,252*	*22,346*	*24,822*
Other banks—					
The Brisbane Permanent Building and Banking Co. Ltd.	31.8.66	672	227	199	246
The Rural Bank of New South Wales (General Bank Department)	30.6.66	9,662	8,910	n.a	752
State Bank of South Australia	30.6.66	(*h*) 5,452	4,778	n.a.	674
The Rural and Industries Bank of Western Australia (Rural Department)(*i*)	31.3.66	(*h*) 5,888	5,566	n.a.	322
Total, other banks	..	*21,674*	*19,481*	*199*	*1,994*
Total, all banks, 1966	..	289,094	239,733	22,545	26,816
Total, all banks, 1965	..	269,688	222,799	(*h*)	24,339

For footnotes *see* page 692.

AUSTRALIAN CHEQUE-PAYING BANKS: APPROPRIATION OF PROFITS 1965 AND 1966

($'000)

Bank	Reserve funds (c)	Writing-off bank premises	Other appropriations	Dividends(d)			
				Gross	British income taxes payable by bank and recouped from shareholders	Net	Rate per annum (per cent)
1966—							
Major Trading Banks—							
Commonwealth Trading Bank of Australia	1,083	384	(e)1,083	..	..	..	..
Australia and New Zealand Bank Ltd.	628	..	..	4,638	..	4,638	12.0
The Bank of Adelaide	50	..	..	560	..	560	10.0
Bank of New South Wales	1,000	1,228	..	4,829	..	4,829	10.0
The Commercial Bank of Australia Ltd.	..	150	..	1,865	..	1,865	(f)
The Commercial Banking Co. of Sydney Ltd.	500	200	..	1,700	..	1,700	10.0
The English, Scottish and Australian Bank Ltd.	..	..	..	1,757	..	(g)1,685	10.0
The National Bank of Australasia Ltd.	..	..	..	2,522	..	2,522	10.0
The Queensland National Bank Ltd. (in voluntary liquidation)	..	..	..	..	..	..	..
Total, Major Trading Banks	*3,261*	*1,962*	*1,083*	*17,871*	..	*17,800*	..
Other banks—							
The Brisbane Permanent Building and Banking Co. Ltd.	50	..	..	200	..	200	8.0
The Rural Bank of New South Wales (General Bank Department)	752	..	..	..	..	..	..
State Bank of South Australia	674	..	..	..	..	..	..
The Rural and Industries Bank of Western Australia (Rural Department)(i)	322	..	..	..	..	..	..
Total, other banks	*1,798*	..	..	*200*	..	*200*	..
Total, all banks, 1966	**5,059**	**1,962**	**1,083**	**18,072**	..	**18,000**	..
Total, all banks, 1965	**5,466**	**1,914**	**828**	**17,122**	**1,345**	**14,484**	..

(a) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts) after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets and losses on realisation of assets, and transfers to the credit of contingencies accounts (out of which accounts provision for all bad and doubtful debts has been made). (b) Includes directors' fees. (c) Excludes accumulated profits and profit and loss accounts. (d) Dividends paid or payable out of profits earned during the year. (e) Commonwealth of Australia. (f) Six per cent on Preference shares and twelve per cent on Ordinary shares. (g) British taxes of $71,939 deducted from first interim dividend and retainable. (h) Earnings represent gross earnings; expenses include interest paid, management expenses and provisions for contingencies. (i) Includes profit and loss on account of Savings Bank business.

All cheque-paying banks—average liabilities and assets within Australia

Particulars of the average liabilities and assets *within Australia* for all cheque-paying banks in Australia for the month of June 1966 are shown in the following tables. The details in these tables relate only to liabilities and assets within Australia and include the overseas banks, the Bank of China, Bank of New Zealand, and Banque Nationale de Paris. The tables on pages 688–90, Australian cheque-paying banks, relate to liabilities and assets both inside and outside Australia and exclude the overseas banks.

ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA(*a*)
MONTH OF JUNE 1966
($'000)

Bank	Deposits repayable in Australia				Balances due to other banks	Bills payable and all other liabilities to the public	Total
	Fixed	Current		Total			
		Bearing interest	Not bearing interest				
Major Trading Banks—							
Commonwealth Trading Bank of Australia	418,025	51,580	453,746	923,351	2,464	11,641	937,456
Australia and New Zealand Bank Ltd.	258,128	29,055	391,562	678,744	6,271	15,827	700,843
The Bank of Adelaide . . .	33,858	4,305	48,358	86,521	3,750	1,098	91,369
Bank of New South Wales . .	465,609	80,174	645,815	1,191,598	1,301	21,098	1,213,997
The Commercial Bank of Australia Ltd.	184,362	21,955	264,734	471,052	3,461	7,967	482,479
The Commercial Banking Co. of Sydney Ltd.	193,062	33,470	261,191	487,723	2,978	46,541	537,242
The English, Scottish and Australian Bank Ltd.	139,097	26,072	230,447	395,616	590	20,515	416,720
The National Bank of Australasia Ltd. and The Queensland National Bank Ltd. (in voluntary liquidation) (*b*)	310,427	70,071	377,343	757,841	4,952	14,498	777,291
Total, Major Trading Banks .	*2,002,567*	*316,683*	*2,673,196*	*4,992,446*	*25,767*	*139,185*	*5,157,398*
Other banks—							
Bank of China	5	..	88	93	..	10	103
Bank of New Zealand . . .	1,801	135	6,031	7,967	234	316	8,517
The Brisbane Permanent Building and Banking Co. Ltd.	1,356	5,802	..	7,159	129	737	8,024
Banque Nationale de Paris . .	1,914	1,021	3,334	6,269	1,864	157	8,291
The Rural Bank of New South Wales (General Bank Department) . .	98,036	43,631	78,087	219,754	6,647	19,917	246,318
State Bank of South Australia .	14,410	2,037	20,211	36,658	15	68,227	104,900
The Rural and Industries Bank of Western Australia (Rural Department)	15,885	1,626	20,509	38,020	317	25,366	63,703
Total, other banks . . .	*133,409*	*54,252*	*128,260*	*315,921*	*9,205*	*114,730*	*439,856*
Total, all banks . . .	2,135,977	370,934	2,801,456	5,308,367	34,972	253,915	5,597,254

(*a*) Includes Papua and New Guinea. (*b*) Combined balances of The National Bank of Australasia Ltd. and The Queensland National Bank Ltd. Inter-bank balances resulting from amalgamation have been excluded.

ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA(*a*) MONTH OF JUNE 1966

($'000)

Bank	Coin, bullion, notes and cash at Reserve Bank	Commonwealth Government securities		Loans to authorised dealers in short-term money market	Statutory Reserve Deposit Account with Reserve Bank	Loans (*b*), advances and bills discounted	All other assets (*c*)	Total
		Treasury bills and notes	Other securities					
Major Trading Banks—								
Commonwealth Trading Bank of Australia	29,775	9,031	258,453	9,242	85,845	473,400	70,815	936,563
Australia and New Zealand Bank Ltd.	22,166	9,996	99,863	16,848	64,476	404,379	62,613	680,340
The Bank of Adelaide	3,739	650	12,077	565	8,270	55,928	16,687	97,916
Bank of New South Wales	29,336	9,216	265,555	6,142	113,196	703,126	113,893	1,240,464
The Commercial Bank of Australia Ltd.	14,770	300	89,444	7,000	45,003	279,622	47,807	483,947
The Commercial Banking Co. of Sydney Ltd.	13,675	1,803	89,104	5,300	46,385	290,482	59,154	505,903
The English, Scottish and Australian Bank Ltd.	13,568	629	74,449	3,810	37,716	213,181	45,946	389,301
The National Bank of Australasia Ltd. and The Queensland National Bank Ltd. (in voluntary liquidation)(*d*)	23,152	6,835	130,083	12,095	71,686	424,492	87,277	755,621
Total, Major Trading Banks	*150,180*	*38,461*	*1,019,030*	*61,002*	*472,578*	*2,844,610*	*504,192*	*5,090,054*
Other banks—								
Bank of China	95	..	..	80	5	17	26	222
Bank of New Zealand	161	305	1,767	845	527	7,047	2,658	13,308
The Brisbane Permanent Building and Banking Co. Ltd.	67	..	1,111	..	143	8,517	2,044	11,883
Banque Nationale de Paris	219	..	900	50	278	7,539	1,778	10,764
The Rural Bank of New South Wales (General Bank Department)	9,362	1,200	59,955	10,960	..	188,443	20,009	289,929
State Bank of South Australia	1,695	..	6,746	..	..	92,317	10,940	111,698
The Rural and Industries Bank of Western Australia (Rural Department)	1,040	..	27,061	1,870	..	34,302	6,788	71,062
Total, other banks	*12,638*	*1,505*	*97,540*	*13,805*	*953*	*338,181*	*44,244*	*508,867*
Total, all banks	162,819	39,966	1,116,570	74,807	473,531	3,182,792	548,437	5,598,921

(*a*) Includes Papua and New Guinea. (*b*) Other than loans to authorised dealers in the short-term money market. (*c*) Includes local government and semi-governmental securities. (*d*) *See* footnote (*b*) to table on previous page.

The average liabilities and assets within Australia in the month of June 1962 to 1966 are shown in the following tables for the Major Trading Banks and all cheque-paying banks in Australia.

ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA(*a*)
JUNE 1962 TO 1966
($ million)

June—	Deposits repayable in Australia				Balances due to other banks	Bills payable and all other liabilities to the public	Total
	Fixed	Current		Total			
		Bearing interest	Not bearing interest				
Major Trading Banks—							
1962 . . .	1,102.6	210.5	2,335.1	3,648.3	19.3	66.7	3,734.3
1963 . . .	1,227.6	235.6	2,383.8	3,846.9	24.7	74.9	3,946.5
1964 . . .	1,499.1	260.2	2,618.9	4,378.2	23.1	85.1	4,486.4
1965 . . .	1,791.1	304.2	2,651 2	4,746.4	34.6	124.0	4,904.9
1966 . . .	2,002.6	316.7	2,673.2	4,992.4	25.8	139.2	5,157.4
All cheque-paying banks—							
1962 . . .	1,155.4	250.1	2,431.3	3,836.8	22.1	142.5	4,001.4
1963 . . .	1,295.5	279.4	2,489.5	4,064.3	28.0	162.1	4,254.5
1964 . . .	1,604.8	305.3	2,739.2	4,649.3	26.7	180.5	4,856.5
1965 . . .	1,909.7	353.0	2,775.7	5,038.4	39.4	229.6	5,307.4
1966 . . .	2,136.0	370.9	2,801.5	5,308.4	35.0	253.9	5,597.3

(*a*) Includes Papua and New Guinea.

ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA(*a*)
JUNE 1962 TO 1966
($ million)

June—	Coin, bullion, notes and cash at Reserve Bank	Commonwealth Government securities		Loans to authorised dealers in short-term money market	Statutory Reserve Deposit Account with Reserve Bank	Loans(*b*), advances and bills discounted	All other assets (*d*)	Total
		Treasury bills and notes(*c*)	Other securities					
Major Trading Banks—								
1962 . .	140.2	24.8	728.7	53.0	389.1	2,062.7	389.6	3,788.3
1963 . .	130.9	53.3	733.8	53.6	446.4	2,202.3	347.0	3,967.3
1964 . .	136.1	50.4	865.3	56.6	677.7	2,333.2	347.9	4,467.2
1965 . .	159.9	20.6	871.2	77.4	656.1	2,631.1	410.9	4,827.1
1966 . .	150.2	38.5	1,019.0	61.0	472.6	2,844.6	504.2	5,090.1
All cheque-paying banks—								
1962 . .	154.9	24.8	771.7	55.8	390.0	2,286.8	421.6	4,105.5
1963 . .	138.5	58.8	784.6	58.0	447.3	2,464.8	380.0	4,331.9
1964 . .	144.0	53.4	959.1	67.3	678.8	2,609.9	383.6	4,896.0
1965 . .	168.4	22.2	952.0	93.7	657.2	2,955.1	447.9	5,296.5
1966 . .	162.8	40.0	1,116.6	74.8	473.5	3,182.8	548.4	5,598.9

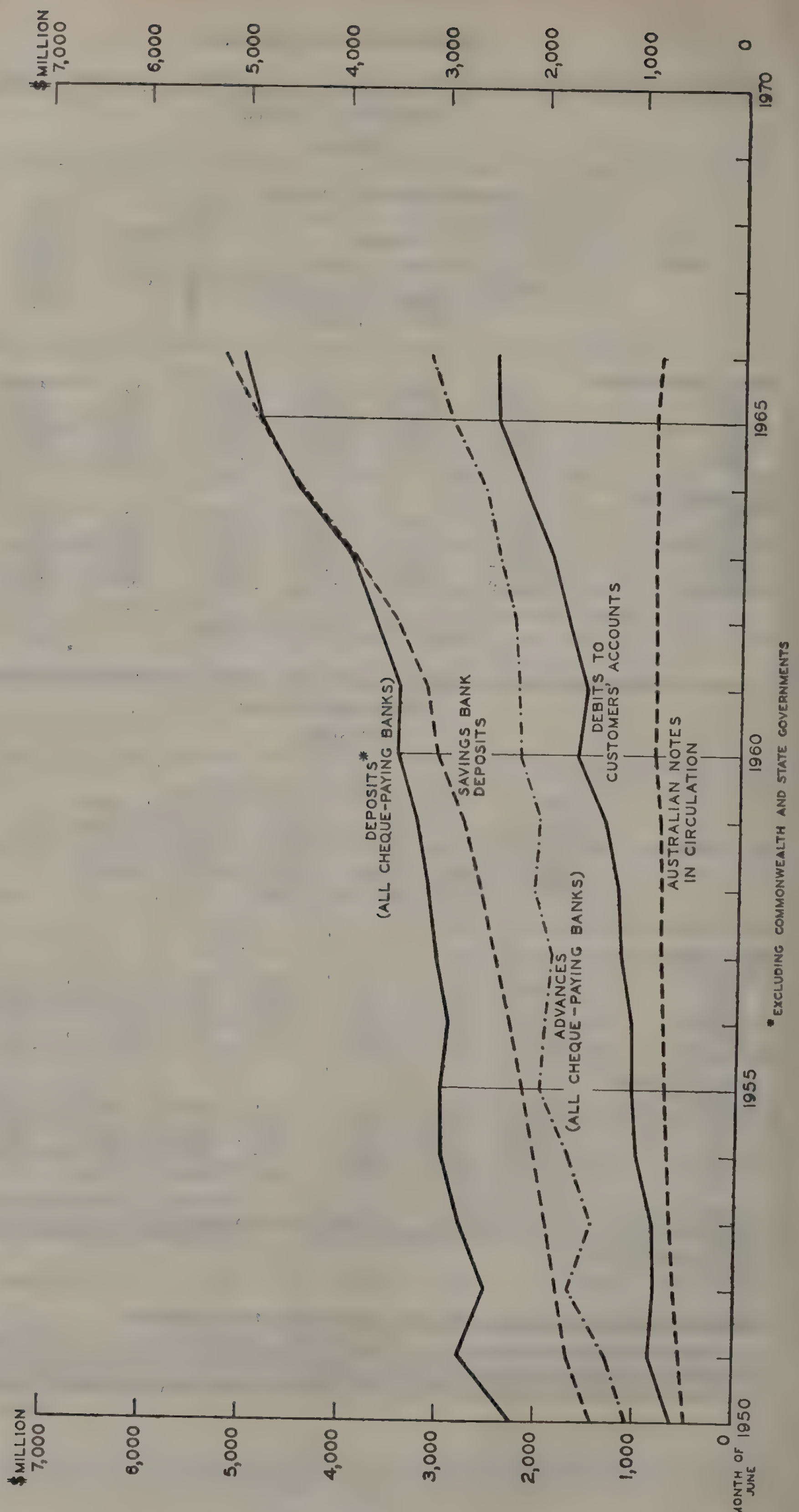
(*a*) Includes Papua and New Guinea. (*b*) Excludes loans to authorised dealers in the short-term money market. (*c*) Prior to July 1962, seasonal securities. (*d*) Includes local government and semi-governmental securities.

All cheque-paying banks—ratios of assets and liabilities to total deposits

The following table shows, for the Major Trading Banks and for all cheque-paying banks, the ratios of selected assets and liabilities to total deposits for the month of June 1962 to 1966. The ratios are based on the average liabilities and assets for the month of June in the years shown.

BANKING: AUSTRALIA

1950 TO 1966



*EXCLUDING COMMONWEALTH AND STATE GOVERNMENTS

PLATE 39

ALL CHEQUE-PAYING BANKS: RATIOS OF SELECTED AVERAGE ASSETS AND LIABILITIES TO AVERAGE TOTAL DEPOSITS(*a*), JUNE 1962 TO 1966

(Per cent)

June—	Coin, bullion, notes and cash at Reserve Bank	Commonwealth and State Government securities		Statutory Reserve Deposit Account with Reserve Bank	Loans(*c*), advances and bills discounted	Deposits not bearing interest
		Treasury bills and notes(*b*)	Other			
Major Trading Banks—						
1962	3.8	0.7	20.0	10.7	56.5	64.0
1963	3.4	1.4	19.1	11.6	57.2	62.0
1964	3.1	1.2	19.8	15.5	53.3	59.8
1965	3.4	0.4	18.4	13.8	55.4	55.9
1966	3.0	0.8	20.4	9.5	57.0	53.5
All cheque-paying banks—						
1962	4.1	0.6	20.1	10.2	59.6	63.4
1963	3.4	1.5	19.3	11.0	60.6	61.3
1964	3.1	1.2	20.6	14.6	56.1	58.9
1965	3.0	0.4	18.9	13.0	58.7	55.1
1966	3.1	0.8	21.0	8.9	60.0	52.8

(*a*) Based on deposits and assets within Australia (including Papua and New Guinea) and excludes London Funds. (*b*) Prior to July 1962, seasonal securities. (*c*) Excludes loans to authorised dealers in short-term money market.

The following table shows, for each State and Territory, the proportion of non-interest bearing deposits to total deposits with the Major Trading Banks and with all cheque-paying banks for the month of June 1962 to 1966. The ratios are based on the average deposits for the month of June in the years shown.

ALL CHEQUE-PAYING BANKS: PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS, STATES AND TERRITORIES JUNE 1962 TO 1966

(Per cent)

June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (*a*)
Major Trading Banks—									
1962	65.0	63.2	63.3	60.8	65.6	67.6	71.5	72.9	64.0
1963	62.7	60.9	61.8	59.2	63.3	66.7	64.0	70.6	62.0
1964	60.5	58.6	60.7	56.7	59.6	65.2	64.2	68.2	59.8
1965	56.6	54.3	56.7	53.2	57.0	61.5	63.2	65.9	55.9
1966	54.2	51.7	53.5	52.5	55.9	60.1	60.8	63.2	53.5
All cheque-paying banks—									
1962	63.5	63.2	62.7	60.2	65.6	68.0	71.5	72.9	63.4
1963	61.1	61.0	61.0	58.6	64.4	66.7	64.0	70.6	61.3
1964	58.3	58.7	60.0	56.8	60.7	65.2	64.2	68.2	58.9
1965	54.8	54.3	56.2	53.4	57.3	61.5	63.2	65.9	55.1
1966	52.4	51.7	53.0	52.8	55.7	60.1	60.8	63.2	52.8

(*a*) Includes Papua and New Guinea.

The ratio of advances to total deposits for each State and Territory for the Major Trading Banks and for all cheque-paying banks for the month of June 1962 to 1966 is shown in the following table. The ratios are based on the averages of deposits and advances for the month of June in the years shown.

ALL CHEQUE-PAYING BANKS: RATIO OF ADVANCES TO TOTAL DEPOSITS STATES AND TERRITORIES, JUNE 1962 TO 1966

(Per cent)

June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
Major Trading Banks—									
1962 . .	60.1	51.3	61.6	49.3	64.0	59.4	29.3	26.0	56.5
1963 . .	60.5	52.7	59.5	50.8	65.4	64.0	31.7	30.7	57.2
1964 . .	57.6	47.4	54.9	47.4	64.1	58.0	35.1	31.0	53.3
1965 . .	58.6	49.1	59.8	52.1	64.8	55.5	35.7	52.8	55.4
1966 . .	61.8	52.0	59.5	55.2	55.6	51.0	35.0	30.3	57.0
All cheque-paying banks—									
1962 . .	64.3	51.6	62.4	59.6	70.3	59.4	29.3	26.0	59.6
1963 . .	65.1	52.9	60.3	63.9	71.7	64.0	31.7	30.7	60.6
1964 . .	60.3	47.4	55.7	62.5	70.5	58.0	35.1	31.0	56.1
1965 . .	61.8	49.3	60.4	70.1	70.6	55.5	35.7	52.8	58.7
1966 . .	64.3	52.2	60.1	75.0	59.7	51.0	35.0	30.3	60.0

(*a*) Includes Papua and New Guinea.

Major Trading Banks—classification of bank advances within Australia

Classifications of bank advances of the Major Trading Banks outstanding for each State at 11 January 1967 and for Australia at July 1964 to 1966 and January 1967 are shown in the following tables.

Resident borrowers cover institutions (including branches of overseas institutions) engaged in business in Australia and persons permanently residing in Australia. Non-resident borrowers cover all other persons and institutions incorporated abroad, which, though represented, do not carry on business in Australia.

Advances to resident borrowers have been classified as business advances, advances to public authorities, personal advances, and advances to non-profit organisations.

Business advances have been further classified to the main industry of the borrower and include advances to partnerships, companies and other institutions engaged in business in Australia, advances to persons actively engaged in business on their own behalf if the advance is mainly for business purposes, advances to mutual, co-operative and benefit societies which distribute their profits or surpluses (if any) to members by way of dividends, rebates on charges for goods and services, or increased benefits.

Advances to public authorities cover advances to local and semi-governmental authorities including separately constituted government business undertakings but not the Commonwealth or State Governments. Personal advances cover advances to persons for purposes other than carrying on a business. Advances to non-profit organisations cover advances to organisations which are not carried on for the purpose of making a profit or gain to individual members, any income of the organisation being used for the purposes of the organisation or for the benefit of the community.

MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(*a*), STATES, 11 JANUARY 1967

Classification	N.S.W. (*b*) $ mill.	Vic. $ mill.	Qld (*a*) $ mill.	S.A. (*c*) $ mill.	W.A. $ mill.	Tas. $ mill.	Aust. (*a*) $ mill.	Proportion of total (per cent)	Term loan component $ mill.
RESIDENT BORROWERS									
Business advances classified according to main industry of borrower—									
Agriculture, grazing and dairying	259.5	125.0	147.5	52.5	53.5	14.4	652.6	22.3	80.7
Manufacturing	273.5	175.0	68.9	34.3	19.2	10.5	581.5	19.8	99.2
Transport, storage and communication	14.6	20.2	7.1	3.1	2.5	1.3	49.0	1.7	10.5
Finance—									
Building and housing societies	19.2	16.6	2.1	0.8	0.3	0.5	39.6	1.3	0.2
Other	42.1	41.7	13.3	7.6	2.9	5.2	113.1	3.9	1.0
Total, finance	61.4	58.4	15.5	8.4	3.2	5.8	152.7	5.2	1.3
Commerce—									
Retail trade	101.5	66.1	41.0	17.5	14.3	6.8	247.1	8.4	4.4
Wholesale trade(*d*)	139.0	82.6	14.4	19.7	19.5	5.9	281.1	9.6	9.1
Total, commerce	240.5	148.7	55.3	37.1	33.9	12.7	528.2	18.0	13.5
Building and construction	36.2	27.1	11.8	5.3	6.9	1.7	89.1	3.0	5.1
Other businesses	105.6	69.8	46.0	15.5	19.2	4.4	260.5	8.9	23.0
Unclassified	8.2	9.5	3.3	3.1	1.3	0.5	25.8	0.9	2.0
Total, business advances—									
Companies(*e*)	644.9	418.8	142.3	89.1	62.5	29.1	1,386.8	47.3	162.6
Other(*e*)	354.7	215.0	213.3	70.2	77.2	22.3	952.7	32.5	72.7
Total	999.6	633.8	355.6	159.3	139.7	51.4	2,339.5	79.8	235.3
Advances to public authorities(*f*)	15.6	34.3	1.1	1.1	1.3	0.2	53.5	1.8	2.1
Personal advances—									
Building or purchasing own home (individuals)	120.4	56.6	30.8	14.3	15.2	3.8	241.2	8.2	0.1
Other (including personal loans)	103.7	66.3	32.3	14.9	15.3	5.5	238.0	8.1	. .
Total, personal	224.1	122.9	63.2	29.2	30.5	9.3	479.2	16.3	0.1
Advances to non-profit organisations	28.9	14.6	8.7	2.8	4.0	0.8	59.8	2.1	0.3
Total, advances to resident borrowers	*1,268.3*	*805.7*	*428.5*	*192.4*	*175.4*	*61.7*	*2,932.0*	*100.0*	*237.8*
NON-RESIDENT BORROWERS									
Advances to non-resident borrowers	*0.4*	*0.4*	. .	*0.1*	*0.1*	. .	*1.0*	. .	. .
TOTAL ADVANCES TO ALL BORROWERS									
Grand total	**1,268.6**	**806.1**	**428.5**	**192.5**	**175.5**	**61.7**	**2,932.9**	**100.0**	**237.8**

(*a*) Includes Papua and New Guinea. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory. (*d*) Includes temporary advances to woolbuyers. (*e*) The combined advances for these two groups are distributed over the industries above. (*f*) Includes local government and semi-governmental bodies.

MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(*a*), JULY 1964 TO 1966 AND JANUARY 1967

Classification	July—						January—	
	1964		1965		1966		1967	
	Amount ($ mill.)	Per cent	Amount ($ mill.)	Per cent	Amount ($ mill.)	Per cent	Amount ($ mill.)	Per cent
RESIDENT BORROWERS								
Business advances classified according to main industry of borrower—								
Agriculture, grazing and dairying	514.3	21.6	584.1	21.8	650.4	22.2	652.6	22.3
Manufacturing	433.0	18.2	572.9	21.4	620.0	21.2	581.5	19.8
Transport, storage and communication	40.9	1.7	42.7	1.6	46.5	1.6	49.0	1.7
Finance—								
Building and housing societies	44.0	1.9	43.2	1.6	41.1	1.4	39.6	1.3
Other	93.5	3.9	96.7	3.6	96.0	3.3	113.1	3.9
Total, finance	137.4	5.8	139.9	5.2	137.1	4.7	152.7	5.2
Commerce—								
Retail trade	232.6	9.8	242.1	9.1	272.2	9.3	247.1	8.4
Wholesale trade(*b*)	248.6	10.5	275.8	10.3	286.5	9.8	281.1	9.6
Total, commerce	481.2	20.3	517.9	19.4	558.7	19.1	528.2	18.0
Building and construction	72.8	3.1	84.5	3.2	88.2	3.0	89.1	3.0
Other businesses	197.9	8.3	215.1	8.0	254.1	8.7	260.5	8.9
Unclassified	19.4	0.8	22.8	0.9	25.3	0.9	25.8	0.9
Total, business advances—								
Companies(*c*)	1,087.3	45.7	1,291.5	48.3	1,408.8	48.2	1,386.8	47.3
Other(*c*)	809.5	34.1	888.2	33.2	971.5	33.2	952.7	32.5
Total	1,896.9	79.8	2,179.7	81.5	2,380.3	81.4	2,339.5	79.8
Advances to public authorities(*d*)	18.4	0.8	19.9	0.8	28.7	1.0	53.5	1.8
Personal advances classified according to main purpose of advance—								
Building or purchasing own home (individuals)	210.8	8.9	219.3	8.2	229.5	7.8	241.2	8.2
Other (including personal loans)	200.2	8.4	206.1	7.7	231.0	7.9	238.0	8.1
Total, personal	411.0	17.3	425.4	15.9	460.5	15.7	479.2	16.3
Advances to non-profit organisations	49.7	2.1	49.1	1.8	55.2	1.9	59.8	2.1
Total, advances to resident borrowers	*2,375.8*	*100.0*	*2,674.2*	*100.0*	*2,924.7*	*100.0*	*2,932.0*	*100.0*
NON-RESIDENT BORROWERS								
Advances to non-resident borrowers	*1.0*	..	*0.9*	..	*1.0*	..	*1.0*	..
TOTAL ADVANCES TO ALL BORROWERS								
Grand total	2,376.8	100.0	2,675.1	100.0	2,925.7	100.0	2,932.9	100.0

(*a*) Includes Papua and New Guinea. (*b*) Includes temporary advances to woolbuyers. (*c*) The combined advances for these two groups are distributed over the industries above. (*d*) Includes local government and semi-governmental bodies.

Major Trading Banks—classification of bank deposits within Australia

A classification of bank deposits (excluding deposits of Commonwealth and State Governments) of the Major Trading Banks for July 1964 to 1966 and January 1967 is given in the following table. The classification is similar to that used for advances (*see* page 698).

MAJOR TRADING BANKS: CLASSIFICATION OF DEPOSITS(*a*) WITHIN AUSTRALIA(*b*), JULY 1964 TO 1966 AND JANUARY 1967

Classification	July—						January—	
	1964		1965		1966		1967	
	Amount ($ mill.)	Per cent	Amount ($ mill.)	Per cent	Amount ($ mill.)	Per cent	Amount ($ mill.)	Per cent
RESIDENT DEPOSITORS								
Business deposits classified according to main industry of depositor—								
Agriculture, grazing and dairying	815.0	19.4	791.1	17.8	801.2	16.9	888.5	17.2
Manufacturing	309.9	7.4	283.8	6.4	284.1	6.0	356.9	6.9
Transport, storage and communication	70.5	1.7	72.8	1.6	77.5	1.6	81.8	1.6
Finance	308.0	7.3	311.9	7.0	339.9	7.2	369.8	7.1
Commerce	360.5	8.6	370.3	8.3	382.1	8.1	444.2	8.6
Building and construction	124.0	2.9	137.4	3.1	148.8	3.1	172.3	3.3
Other businesses	495.9	11.8	518.7	11.6	548.8	11.6	577.0	11.2
Unclassified	41.9	1.0	45.6	1.0	62.5	1.3	50.1	1.0
Total, business deposits—								
Companies(*c*)	998.4	23.8	982.2	22.0	1,074.4	22.6	1,222.9	23.7
Other(*c*)	1,527.3	36.3	1,549.5	34.8	1,570.6	33.1	1,717.7	33.2
Total	2,525.7	60.1	2,531.6	56.8	2,645.0	55.7	2,940.6	56.9
Deposits of public authorities	238.9	5.7	267.0	6.0	242.0	5.1	220.0	4.3
Personal deposits	1,231.5	29.3	1,425.8	32.0	1,611.0	33.9	1,740.3	33.7
Deposits of non-profit organisations	169.5	4.1	187.9	4.2	201.4	4.2	209.0	4.1
Total, resident depositors	*4,165.5*	*99.2*	*4,412.3*	*99.0*	*4,699.4*	*99.0*	*5,110.0*	*99.0*
NON-RESIDENT DEPOSITORS								
Total, non-resident depositors	*34.9*	*0.8*	*43.8*	*1.0*	*47.9*	*1.0*	*54.2*	*1.0*
TOTAL—ALL DEPOSITORS								
Grand total	4,200.4	100.0	4,456.0	100.0	4,747.4	100.0	5,164.2	100.0

(*a*) Excludes deposits of Commonwealth and State Governments. (*b*) Includes Papua and New Guinea. (*c*) The combined deposits of these two groups are distributed over the industries above.

Major Trading Banks—new and increased lending commitments and overdraft limits

Particulars of new and increased lending commitments and overdraft limits of the Major Trading Banks are shown on page 702. The figures represent gross new lending commitments of banks and do not take account of cancellations and reductions of existing limits. Figures for cancellations and reductions of existing limits can be obtained from this series (after deducting term loan component and adjusting the weekly averages to a monthly basis) in conjunction with that of overdraft limits shown in the following table. However, these derived figures should be regarded as an approximation only, since there are unavoidable differences in the basis of compilation of the two series.

MAJOR TRADING BANKS: NEW AND INCREASED LENDING COMMITMENTS AND OVERDRAFT LIMITS, 1962–63 TO 1965–66 AND JULY 1965 TO DECEMBER 1966

(*Source:* Reserve Bank of Australia)

(**$ million**)

New and increased lending commitments(*a*)				Overdraft limits(*b*)	
Weekly average for period ending second Wednesday of—	Aggregate	Term loan component	Farm development component	Second Wednesday of—	Total outstanding
1961–62(*c*)	20.0	..	..	1962 July	3,465.6
1962–63(*c*)	22.1	1.9	..	1963 „	3,642.7
1963–64(*c*)	22.5	1.7	..	1964 „	3,801.0
1964–65(*c*)	21.7	1.4	..	1965 „	3,932.2
1965–66(*c*)	22.8	1.3	0.1	1966 „	4,089.8
1965–66—				1965–66—	
July	20.4	1.8	..	July	3,932.2
August	21.5	1.0	..	August	3,941.0
September	20.2	1.6	..	September	3,956.6
October	19.1	0.9	..	October	3,974.2
November	21.1	1.7	..	November	3,987.7
December	20.4	0.9	..	December	3,995.3
January	22.1	1.7	..	January	3,960.8
February	20.3	1.2	..	February	3,959.0
March	24.6	2.0	..	March	3,969.4
April	24.5	1.3	..	April	3,989.2
May	25.5	1.0	0.3	May	4,020.6
June	25.3	1.3	0.4	June	4,059.4
1966–67—				1966–67—	
July	28.6	1.2	0.4	July	4,089.8
August	26.8	1.8	0.5	August	4,111.4
September	25.8	1.7	0.4	September	4,146.8
October	27.4	2.0	0.6	October	4,173.1
November	29.0	1.5	0.4	November	4,214.4
December	30.5	1.8	0.4	December	4,260.6

(*a*) Excludes commitments in respect of temporary advances to woolbuyers. (*b*) Excludes limits in respect of temporary advances to woolbuyers, term loans and farm development loans. (*c*) Year ended second Wednesday of July.

The following table shows new and increased lending commitments in respect of the Major Trading Banks to selected industrial groups for the six months ended July 1965 to January 1967. The classification is an abridgement of that used for bank advances (*see* page 698).

The table indicates the sources of demand for new lending. If taken in conjunction with the classification of overdraft limits outstanding (*see* below), it also shows the approximate rate of cancellations and reductions of limits in the main industrial groups.

MAJOR TRADING BANKS: NEW AND INCREASED LENDING COMMITMENTS TO SELECTED INDUSTRIAL GROUPS(*a*), SIX MONTHS ENDED JULY 1965 TO JANUARY 1967

(*Source:* Reserve Bank of Australia)

($ million)

Classification	Six months ended second Wednesday of—							
	July 1965		Jan. 1966		July 1966		Jan. 1967	
	Aggregate	Term loan component	Aggregate	Term loan component	Aggregate	Term loan component	Aggregate	Term loan component
Business—								
Agriculture, grazing and dairying	113.0	11.9	105.1	11.8	*b*142.9	18.1	*b*144.2	16.6
Manufacturing	120.5	16.2	117.8	17.9	104.8	8.4	114.3	14.6
Finance	18.0	0.3	12.9	..	19.5	..	25.6	0.2
Commerce(*a*)	84.2	1.1	82.8	1.7	97.3	1.7	101.9	3.8
Building and construction	24.8	0.2	23.2	1.0	27.5	0.5	36.6	3.2
Persons—								
Advances for building or purchase of own home (to individuals)	67.9	..	64.1	..	75.1	..	86.2	..
Other (including personal loans)	63.4	..	57.9	..	76.1	..	82.0	..
All other	81.5	7.8	74.8	1.6	105.6	5.8	126.3	8.8
Total	573.4	37.5	538.7	34.0	*b*648.7	34.5	*b*717.0	47.3

(*a*) Excludes commitments in respect of temporary advances to woolbuyers. (*b*) Includes Farm Development Loan approvals: $4.6 million, July 1966; $11.2 million, January 1967.

The following table shows the classification of overdraft limits outstanding in respect of the Major Trading Banks for January 1964 to 1967. The classification is similar to that used for advances (*see* page 698). The table shows the trend of net new lending classified by industry. If used in conjunction with the classification of bank advances, it shows the range of limits usage by industry, and if used in conjunction with the classification of new and increased lending commitments (*see* above), it shows the approximate rate of cancellations and reductions of limits by industry.

MAJOR TRADING BANKS: CLASSIFICATION OF OVERDRAFT LIMITS OUTSTANDING(*a*), JANUARY 1964 TO 1967

(*Source:* Reserve Bank of Australia)

($ million)

Classification	Second Wednesday of—						
	Jan. 1964	July 1964	Jan. 1965	July 1965	Dec. 1965	July 1966	Jan. 1967
RESIDENT BORROWERS							
Business overdraft limits classified according to main industry of borrower—							
Agriculture, grazing and dairying—							
Mainly sheep grazing	290.1	283.8	289.5	299.5	317.1	334.4	352.6
Mainly wheat growing	62.0	62.8	69.5	71.6	78.9	81.1	88.7
Mainly dairying and pig raising	105.5	106.5	103.8	102.8	104.2	104.2	103.9
Other	166.3	173.9	177.1	186.3	189.1	201.2	208.9
Total, agriculture, etc.	623.9	626.9	639.9	660.2	689.2	720.8	754.1

(*a*) Excludes limits in respect of temporary advances to woolbuyers and term loans.

MAJOR TRADING BANKS: CLASSIFICATION OF OVERDRAFT LIMITS OUTSTANDING(*a*), JANUARY 1964 TO 1967—*continued*

($ million)

Classification	Second Wednesday of—						
	Jan. 1964	July 1964	Jan. 1965	July 1965	Dec. 1965	July 1966	Jan. 1967
RESIDENT BORROWERS—*continued*							
Manufacturing	914.6	924.4	933.5	995.3	997.1	1,012.7	1,017.8
Transport, storage and communication	62.4	63.8	68.7	62.8	63.6	66.0	67.6
Finance—							
Building and housing societies	60.5	61.0	60.5	58.1	56.0	56.1	55.2
Pastoral finance companies	87.7	89.0	92.6	87.2	88.7	80.0	81.1
Hire purchase and other finance companies	85.8	85.6	86.2	84.3	81.8	76.4	80.5
Other	82.7	79.6	82.5	72.1	74.0	69.6	71.1
Total, finance	*316.8*	*315.2*	*321.8*	*301.7*	*300.6*	*282.1*	*288.0*
Commerce(*a*)—							
Retail trade	363.3	366.9	362.1	375.1	384.6	384.6	405.2
Wholesale trade	284.8	285.9	277.2	289.5	283.6	290.7	292.7
Total, commerce(a)	*648.1*	*652.7*	*639.3*	*664.6*	*668.2*	*675.3*	*697.9*
Building and construction	110.7	117.6	117.3	123.3	124.2	127.4	135.9
Other businesses—							
Mining	34.6	35.3	40.4	45.1	47.1	52.4	62.1
Other	256.0	281.3	291.2	283.5	292.7	305.5	321.1
Total, other businesses	*290.6*	*316.6*	*331.5*	*328.5*	*339.8*	*357.9*	*383.2*
Unclassified	22.2	22.1	25.5	24.3	24.7	26.2	24.7
Total, business overdraft limits	*2,989.3*	*3,039.4*	*3,077.6*	*3,160.6*	*3,207.5*	*3,268.4*	*3,369.1*
Overdraft limits of public authorities	126.4	126.1	137.2	122.4	134.8	137.3	152.8
Personal overdraft limits—							
Building and purchasing own home	263.9	268.3	269.9	272.9	273.8	280.7	297.1
Other	247.0	266.4	267.3	274.0	275.1	297.4	320.7
Total, personal overdraft limits	*510.9*	*534.7*	*537.1*	*546.9*	*548.9*	*578.1*	*617.7*
Overdraft limits of non-profit organizations	98.7	98.5	99.9	100.2	102.7	104.3	109.1
Total, overdraft limits of resident borrowers	*3,725.3*	*3,798.7*	*3,851.8*	*3,930.2*	*3,993.8*	*4,088.2*	*4,248.7*
NON-RESIDENT BORROWERS							
Overdraft limits of non-resident borrowers	*1.7*	*2.2*	*1.5*	*2.0*	1.5	1.5	1.5
TOTAL OVERDRAFT LIMITS							
Grand total	3,727.0	3,801.0	3,853.3	3,932.2	3,995.3	4,089.8	4,250.3

(*a*) Excludes limits in respect of temporary advances to woolbuyers and term loans.

Major Trading Banks—bank advances and fixed deposits, by rate of interest

MAJOR TRADING BANKS: ADVANCES BY RATE OF INTEREST(*a*) JUNE 1963 TO 1966 AND DECEMBER 1966

(*Source:* Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

Interest rate per annum	End of—				
	June 1963	June 1964	June 1965	June 1966	Dec. 1966
5 per cent and less	11.7	10.9	4.0	3.6	4.5
More than 5 per cent but less than 5½ per cent	10.9	2.4	2.3	1.3	1.0
5½ per cent	7.9	8.0	5.0	6.1	2.0
More than 5½ per cent but less than 6 per cent	10.6	6.4	7.9	7.0	7.2
6 per cent	22.3	12.3	6.7	4.9	9.3
More than 6 per cent but less than 6½ per cent	7.6	6.9	9.1	9.3	9.3
6½ per cent	29.0	21.4	10.0	10.2	9.4
More than 6½ per cent but less than 7 per cent	..	4.9	17.1	17.5	16.4
7 per cent	..	26.7	10.7	11.5	11.1
More than 7 per cent and up to 7½ per cent	..	..	27.1	28.5	29.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Excludes term loans and farm development loans.

NOTE. On 17 November 1960 the maximum rate chargeable on advances was 7 per cent, but the average rate of interest on all advances was not to exceed 6 per cent. The maximum average rate requirement was discontinued on 13 April 1962. The maximum rate chargeable on advances was reduced from 7 per cent per annum to 6½ per cent per annum on 1 April 1963, and was raised to 7 per cent per annum on 27 April 1964 and to 7½ per cent per annum on 10 March 1965.

MAJOR TRADING BANKS: FIXED DEPOSITS(*a*), BY RATE OF INTEREST JUNE 1962 TO 1966 AND DECEMBER 1966

(*Source:* Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

Interest rate per annum	End of—					
	June 1962	June 1963	June 1964	June 1965	June 1966	Dec. 1966
3	..	..	0.2	..	..	..
3¼	..	17.6	5.6	..	..	..
3½	7.2	20.5	51.1	0.2	..	..
3¾	17.1	4.0	20.7	2.3	0.1	..
4	26.5	57.9	22.4	32.6	0.5	25.4
4¼	47.9	..	..	37.0	35.4	17.2
4½	1.3	..	..	27.9	64.0	57.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Excludes Commonwealth and State Government fixed deposits.

Cheque-paying banks—interest rates on deposits

CHEQUE-PAYING BANK FIXED DEPOSIT RATES SINCE 1960: AUSTRALIA

(Per cent per annum)

Date from which operative	Deposits for—			
	3 months but less than 12 months		12 months	
1960—17 November	4		4½	
1961—1 July	..		4¼	
1962—13 April	3¾		4	
			12 months to 15 months	
10 September	..		4	
1963—1 April	3¼		3½	
	30 days but less than 3 months	3 months but less than 12 months		
1964—8 April	3¾	3¾	4	
			12 months to 18 months	Over 18 months to 24 months
29 September	..	..	4	4¼
1965—10 March	4¼	4¼	4½	4½
1966—17 August	4	4	4¼	..

Cheque-paying banks—debits to customers' accounts

Statistics of debits to customers' accounts have been collected since September 1945. Generally they represent the total of all cheques drawn by the customers of the banks. The following table shows the average weekly debits to customers' accounts of all cheque-paying banks (including the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank). Debits to accounts of Australian Governments in capital cities are excluded, as they are subject to abnormal influences and are not uniform for each State.

CHEQUE-PAYING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS, STATES AND TERRITORIES, 1961-62 TO 1965-66

(Excluding debits to Commonwealth and State Government accounts in capital cities)

($ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62	654.0	590.0	164.4	116.2	80.4	32.1	2.2	7.9	1,647.1
1962–63	713.1	650.5	185.1	131.6	88.2	35.1	2.5	10.2	1,816.4
1963–64	824.8	733.2	213.2	155.1	96.4	37.1	2.8	11.5	2,073.9
1964–65	935.2	825.3	232.9	170.4	106.3	41.3	3.4	14.5	2,329.3
1965–66	949.0	847.7	232.5	172.8	122.4	43.2	3.8	15.3	2,386.7

Trading bank charges

In October 1962 the trading banks instituted a system of charges on current accounts, and abolished the interstate exchange rates obtaining prior to this date. Details of interstate exchange rates prior to October 1962 may be found in Year Book No. 48, page 785. Charges on current account comprise a basic maintenance fee, a ledger activity fee and a cheque collection fee, each calculated on a quarterly basis and debited as a composite item to accounts four times a year. These charges were revised from 1 October 1966. The following are the current charges.

Basic maintenance current account fee. Sixty-five cents quarterly (non-rebated).

Ledger activity fee (*quarterly*). Up to ½ folio (20 entries), 25 cents; over ½ folio to 1 folio, 80 cents; over 1 folio to 2 folios, $2.25; over 2 folios to 3 folios, $5; over 3 folios to 4 folios, $7.75; over 4 folios to 5 folios, $10.50; over 5 folios to 6 folios, $13.25; over 6 folios to 7 folios, $16; over 7 folios to 15 folios, $16, plus $2.25 per folio or part thereof exceeding 7; over 15 folios to 35 folios, $34, plus $1.75 per folio or part thereof exceeding 15; over 35 folios, $69, plus $1.25 per folio or part thereof exceeding 35. Rebates of one free folio (or equivalent of approximately 40 entries) will be allowed for each complete $1,000 minimum quarterly credit balance. Where rebates are applicable the number of free folios is deducted before the activity fee is calculated.

Collection fee on cheques, etc., deposited. Up to 20 cheques per quarter, free; 21 to 100, 60 cents, plus 30 cents per 10 cheques or part thereof exceeding 20; 101 to 500, $3.00, plus $1.50 per each 50 or part thereof exceeding 100; 501 to 1,000, $15, plus $3 for each 100 or part thereof exceeding 500; 1,001 to 10,000, $30, plus $15 per each 500 or part thereof exceeding 1,000; 10,001 to 50,000, $300, plus $20 per each 1,000 or part thereof exceeding 10,000; 50,001 to 100,000, $1,100, plus $75 per each 5,000, or part thereof exceeding 50,000; over 100,000, $1,850, plus $125 per each 10,000 or part thereof exceeding 100,000.

Savings banks

Savings banks in Australia

For information on the origin of savings banks in Australia and the facilities currently available, *see* Year Book No. 46, page 779 and earlier issues.

All savings banks, including trustee savings banks, but not State savings banks, are subject to the *Banking Act* 1959–1966. Details of this Act and the special provisions applying to savings banks are given in Year Book No. 46, pages 759–60.

Commonwealth Savings Bank. The Commonwealth Savings Bank of Australia was established as a separate institution on 9 June 1928, having functioned previously as a department of the Commonwealth Bank (for particulars of the origin of the Savings Bank Department and the extension of its services *see* Year Book No. 46, page 782, and earlier issues). It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The *Commonwealth Bank Act* 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of three members to manage the savings bank. This Commission was never appointed, and the *Commonwealth Bank Act* 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank. Under the provisions of the *Commonwealth Banks Act* 1959–1966, which came into operation on 14 January 1960, the Commonwealth Savings Bank was maintained in the same form, but was placed under the control of the Commonwealth Banking Corporation (*see also* page 682).

State savings banks. State savings banks at present operating (with date of establishment shown in parentheses) are: The State Savings Bank of Victoria (1841); The Savings Bank of South Australia (1848); the Savings Bank Division of The Rural and Industries Bank of Western Australia (1956).

Trustee savings banks. Two trustee savings banks, The Hobart Savings Bank and Launceston Bank for Savings, operate within Tasmania. These banks commenced business in 1845 and 1835 respectively.

Private savings banks. The Bank of New South Wales Savings Bank Ltd., the Australia and New Zealand Savings Bank Ltd., and the C.B.C. Savings Bank Ltd. commenced business in 1956, the E.S. & A. Savings Bank Ltd. in 1961, The Bank of Adelaide Savings Bank Ltd., The National Bank Savings Bank Ltd., and The Commercial Savings Bank of Australia Ltd. in 1962.

Savings banks, branches and agencies

SAVINGS BANKS: NUMBER OF BRANCHES AND AGENCIES, 30 JUNE 1966

Bank	Branches	Agencies
Commonwealth Savings Bank	923	8,049
Australia and New Zealand Savings Bank Ltd. .	594	804
The Bank of Adelaide Savings Bank Ltd. . .	96	80
Bank of New South Wales Savings Bank Ltd. .	848	2,941
The Commercial Savings Bank of Australia Ltd. .	467	275
C.B.C. Savings Bank Ltd.	451	104
E.S. & A. Savings Bank Ltd.	409	417
The National Bank Savings Bank Ltd. . . .	710	278
The State Savings Bank of Victoria . . .	491	700
The Savings Bank of South Australia . . .	126	781
The Rural and Industries Bank of Western Australia	51	293
Launceston Bank for Savings	25	51
The Hobart Savings Bank	21	21
Total	5,212	14,794

Savings banks—balance-sheets

The information in the following tables for the Commonwealth Savings Bank, the trustee savings banks and the private savings banks has been obtained from the annual returns lodged with the Commonwealth Statistician under section 53 of the *Banking Act* 1959–1966, whereas that for State savings banks has been compiled from information in their annual reports.

SAVINGS BANKS: LIABILITIES(*a*), 1965 AND 1966
($'000)

Bank	Paid-up capital	Reserve funds (used in the business of the bank)	Balance of profit and loss account	Total share-holders' funds	Deposi-tors' balances	Balances due to other banks	Bills payable and all other liabilities (*b*)	Total
1966—								
Commonwealth Savings Bank of Australia	..	32,376	..	*c*32,376	2,325,430	2,576	77,989	2,438,371
State savings banks(*d*)—								
The State Savings Bank of Victoria(*e*) . . .	..	28,650	1,056	*c*29,706	893,602	8,767	43,865	975,940
The Savings Bank of South Australia	..	24,376	333	*c*24,709	343,062	2,772	320	370,863
Total, State savings banks	..	*53,026*	*1,389*	*c54,415*	*1,236,664*	*11,539*	*44,185*	*1,346,803*
Trustee savings banks—								
The Hobart Savings Bank .	..	2,040	115	2,155	42,224	..	188	44,568
Launceston Bank for Savings	..	1,970	98	2,068	36,998	33	241	39,341
Total, trustee savings banks	..	*4,010*	*214*	*4,224*	*79,222*	*33*	*430*	*83,908*
Private savings banks—								
Australia and New Zealand Savings Bank Ltd. . .	4,016	4,000	537	8,553	335,854	..	13,143	357,550
The Bank of Adelaide Savings Bank Ltd. . . .	1,000	250	106	1,356	22,619	..	467	24,442
Bank of New South Wales Savings Bank Ltd. . .	8,000	6,500	1,392	15,892	696,785	..	20,835	733,512
The Commercial Savings Bank of Australia Ltd. . .	2,000	775	266	3,041	113.872	..	1,184	118,098
C.B.C. Savings Bank Ltd. .	4,000	2,650	312	6,962	198,278	..	4,625	209.865
E.S. & A. Savings Bank Ltd.	2,000	1,200	90	3,290	111,539	..	2,164	116,992
The National Bank Savings Bank Ltd.	2,000	850	573	3,423	191,024	..	3,678	198,125
Total, private savings banks	*23,016*	*16,225*	*3,276*	*42,517*	*1,669,971*	..	*46,096*	*1,758,584*
Total, all savings banks, 1966 .	23,016	105,637	4,879	133,531	5,311,287	14,148	168,700	5,627,666
Total, all savings banks, 1965 .	21,016	96,810	4,687	122,513	4,929,301	12,145	151,294	5,215,252

(*a*) At various balance-sheet dates during 1966—*see* table on page 711. (*b*) Includes provision for contingencies. (*c*) Total reserve funds. (*d*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*e*) Includes Crédit Foncier Department.

SAVINGS BANKS: ASSETS(*a*), 1965 AND 1966

($'000)

Bank	Coin, bullion and notes	Deposits with Reserve Bank	Deposits in Australia with trading banks	Money at short call overseas	Australian public securities			Other public securities
					Commonwealth and States		Local and semi-govt authorities	
					Treasury bills and notes	Other securities		
1966—								
Commonwealth Savings Bank of Australia	3,065	216,210	29,727	..	15,242	1,151,617	307,800	1,268
State savings banks(*b*)—								
The State Savings Bank of Victoria(*c*)	5,183	43,735	48,586	..	2,068	224,396	306,651	..
The Savings Bank of South Australia	240	10,418	24,278	..	..	134,043	65,424	..
Total, State savings banks	*5,423*	*54,153*	*72,864*	..	*2,068*	*358,439*	*372,075*	..
Trustee savings banks—								
The Hobart Savings Bank	126	420	2,810	..	..	8,432	18,820	..
Launceston Bank for Savings	81	100	2,970	..	..	9,996	11,736	..
Total, trustee savings banks	*207*	*520*	*5,780*	..	..	*18,427*	*30,555*	..
Private savings banks—								
Australia and New Zealand Savings Bank Ltd.	..	24,850	8,691	..	9,402	108,400	105,444	622
The Bank of Adelaide Savings Bank Ltd.	..	2,300	368	..	..	6,624	5,550	..
Bank of New South Wales Savings Bank Ltd.	2,000	56,100	9,812	..	13,645	212,791	210,757	2,169
The Commercial Savings Bank of Australia Ltd.	..	11,200	1,537	..	400	38,985	34,546	..
C.B.C. Savings Bank Ltd.	..	20,100	3,345	..	..	90,610	41,386	..
E.S. & A. Savings Bank Ltd.	11	11,100	3,574	..	225	39,652	33,275	..
The National Bank Savings Bank Ltd.	..	19,600	2,868	..	1,000	73,026	59,903	..
Total, private savings banks	*2,011*	*145,250*	*30,194*	..	*24,672*	*570,088*	*490,861*	*2,792*
Total, all savings banks, 1966	10,705	416,133	138,566	..	41,982	2,098,571	1,201,291	4,060
Total, all savings banks, 1965	10,707	429,880	126,716	..	2,389	2,064,287	1,092,465	3,330

(*a*) For dates of balance-sheets *see* table on page 711. (*b*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*c*) Includes Crédit Foncier Department.

Table continued on next page.

SAVINGS BANKS: ASSETS(*a*), 1965 AND 1966—*continued*

($'000)

Bank	Other securities	Loans to authorised dealers in short-term money market	Cheques and bills of, and balances with and due from, other banks	Loans(*b*), advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1966—								
Commonwealth Savings Bank of Australia	. .	4,250	1,356	640,051	39,290	4,575	23,920	2,438,371
State savings banks(*c*)—								
The State Savings Bank of Victoria(*d*)	. .	12,490	. .	304,239	13,600	. .	14,992	975,940
The Savings Bank of South Australia	. .	1,400	. .	125,833	5,440	(*e*)	3,787	370,863
Total, State savings banks	. .	*13,890*	. .	*430,072*	*19,040*	. .	*18,780*	*1,346,803*
Trustee savings banks—								
The Hobart Savings Bank	. .	2,440	99	9,940	799	20	661	44,568
Launceston Bank for Savings	. .	900	34	11,984	885	. .	656	39,341
Total, trustee savings banks	. .	*3,340*	*133*	*21,924*	*1,684*	*20*	*1,318*	*83,908*
Private savings banks—								
Australia and New Zealand Savings Bank Ltd.	5,150	5,050	544	86,556	. .	. .	2,840	357,550
The Bank of Adelaide Savings Bank Ltd.	. .	1,900	. .	7,010	480	. .	211	24,442
Bank of New South Wales Savings Bank Ltd.	496	. .	5,559	207,645	5,750	. .	6,788	733,512
The Commercial Savings Bank of Australia Ltd.	. .	600	. .	29,695	. .	. .	1,135	118,098
C.B.C. Savings Bank Ltd.	. .	. .	. .	53,262	. .	. .	1,162	209,865
E.S. & A. Savings Bank Ltd.	. .	. .	. .	27,134	951	. .	1,070	116,992
The National Bank Savings Bank Ltd.	. .	1,900	. .	37,981	. .	. .	1,847	198,125
Total, private savings banks	*5,646*	*9,450*	*6,103*	*449,283*	*7,181*	. .	*15,053*	*1,758,584*
Total, all savings banks, 1966	5,646	30,930	7,593	1,541,329	67,195	4,595	59,070	5,627,666
Total, all savings banks, 1965	5,570	33,232	7,986	1,321,653	61,865	133	55,039	5,215,252

(*a*) For dates of balance-sheets *see* table on page 711. (*b*) Other than loans to authorised dealers in the short-term money market. (*c*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*d*) Includes Crédit Foncier Department. (*e*) Not available. Included in All other assets.

Savings banks—profit and loss accounts

SAVINGS BANKS: PROFIT AND LOSS, APPROPRIATION OF PROFITS AND DIVIDENDS, 1965 AND 1966

($'000)

Bank	Year ended	Profit and loss			
		Net earnings (*a*)	Expenses (*b*)	Income, land and other taxes and payments in lieu of taxes	Net profit
1966—					
Commonwealth Savings Bank of Australia	30.6.66	41,085	31,774	470	8,841
State savings banks(*c*)—					
The State Savings Bank of Victoria(*d*)	30.6.66	18,537	15,826	n.a.	2,711
The Savings Bank of South Australia	30.6.66	5,361	4,244	n.a.	1,117
Total, State savings banks	. .	*23,898*	*20,070*	n.a.	*3,828*
Trustee savings banks—					
The Hobart Savings Bank	31.8.66	661	498	25	138
Launceston Bank for Savings	31.8.66	673	460	12	201
Total, trustee savings banks	. .	*1,333*	*958*	*36*	*339*
Private savings banks—					
Australia and New Zealand Savings Bank Ltd.	30.9.66	6,434	4,402	925	1,107
The Bank of Adelaide Savings Bank Ltd.	30.9.66	484	272	63	150
Bank of New South Wales Savings Bank Ltd.	30.9.66	13,417	9,509	1,584	2,325
The Commercial Savings Bank of Australia Ltd.	30.6.66	1,882	1,213	295	374
C.B.C. Savings Bank Ltd.	30.6.66	3,526	2,009	647	871
E.S. & A. Savings Bank Ltd.	30.6.66	1,829	1,044	375	410
The National Bank Savings Bank Ltd.	30.9.66	3,238	2,343	340	555
Total, private savings banks	. .	*30,811*	*20,790*	*4,228*	*5,792*
Total, all savings banks, 1966	. .	**97,127**	**73,592**	**4,734**	**18,801**
Total, all savings banks, 1965(*e*)	. .	**87,949**	**64,911**	**4,705**	**18,334**

(*a*) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts), after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets, and losses on realisation of assets and transfers to the credit of contingencies accounts (out of which accounts provisions for all bad and doubtful debts have been made). (*b*) Includes directors' fees. (*c*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*d*) Includes Crédit Foncier Department. (*e*) Balancing dates as in 1966.

Table continued on next page.

SAVINGS BANKS: PROFIT AND LOSS, APPROPRIATION OF PROFITS AND DIVIDENDS, 1965 AND 1966—*continued*

($'000)

Bank	Year ended	Profits appropriated to—						
		Reserve funds (*a*)	Written off bank premises	Other appropriations	Dividends(*b*)			
					Gross	British income taxes payable by bank and recouped from shareholders	Net	Rate per annum per cent
1966—								
Commonwealth Savings Bank of Australia . . .	30.6.66	2,566	1,142	(*c*) 5,133	..	..	..	..
State savings banks(*d*)—								
The State Savings Bank of Victoria(*e*) . . .	30.6.66	1,658	723	400	..	..	..	..
The Savings Bank of South Australia . . .	30.6.66	1,120	(*f*)	..	..	..	..	..
Total, State savings banks	..	*2,778*	*723*	*400*	..	..	..	..
Trustee savings banks—								
The Hobart Savings Bank .	31.8.66	110	5	24	..	..	..	..
Launceston Bank for Savings	31.8.66	90	98	23	..	..	..	..
Total, trustee savings banks . . .	..	*200*	*102*	*47*	..	..	..	..
Private savings banks—								
Australia and New Zealand Savings Bank Ltd. . .	30.9.66	600	..	..	482	..	482	12
The Bank of Adelaide Savings Bank Ltd. . .	30.9.66	100	..	..	50	..	50	5
Bank of New South Wales Savings Bank Ltd. . .	30.9.66	1,000	311	..	1,000	..	1,000	12.5
The Commercial Savings Bank of Australia Ltd. .	30.6.66	325	..	..	..	..	..	..
C.B.C. Savings Bank Ltd. .	30.6.66	400	..	..	400	..	400	10
E.S. & A. Savings Bank Ltd.	30.6.66	300	..	..	100	..	100	5
The National Bank Savings Bank Ltd. . . .	30.9.66	350	..	..	100	..	100	5
Total, private savings banks . . .	..	*3,075*	*311*	..	*2,132*	..	*2,132*	..
Total, all savings banks, 1966	..	**8,619**	**2,279**	**5,580**	**2,132**	..	**2,132**	..
Total, all savings banks, 1965(*g*) . . .	..	**9,297**	**2,685**	**4,483**	**1,682**	..	**1,682**	..

(*a*) Excludes accumulated profits and profit and loss accounts. (*b*) Dividends paid or payable out of profits earned during year. (*c*) Provisions for settlements under Savings Bank Amalgamation Agreements, $2,567,618 and Commonwealth of Australia, $2,565,675. Under the terms of the Savings Bank Amalgamation Agreements relating to the absorption of the State savings banks by the Commonwealth Bank, the profits of the Commonwealth Savings Bank in New South Wales and Queensland are equally divided between the Bank and the former controlling authorities in those States. (*d*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia (*e*) Includes Crédit Foncier Department. (*f*) Included in expenses. (*g*) Balancing dates as in 1966.

Savings banks—operative accounts

The following table shows the number of operative savings bank accounts in existence at the end of June 1965 and 1966. The figures relate to the number of accounts and not necessarily to the number of depositors.

SAVINGS BANKS: NUMBER OF OPERATIVE ACCOUNTS(*a*)
JUNE 1965 AND 1966
('000)

State or Territory	End of June(*b*)— 1965	End of June(*b*)— 1966
New South Wales	4,076	4,347
Victoria	3,630	3,815
Queensland	1,541	1,626
South Australia	1,254	1,319
Western Australia	786	848
Tasmania	379	395
Northern Territory	29	33
Australian Capital Territory	74	86
Australia	**11,769**	**12,469**

(*a*) Excludes school bank accounts and small inoperative accounts. (*b*) Private savings banks at last Wednesday in June. Launceston Bank for Savings at last Monday in June, other savings banks at end of June.

Savings banks—business transacted

SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA, 1964-65 AND 1965-66(*a*)
($'000)

State or Territory	1964–65				1965–66			
	Deposits	With-drawals (*b*)	Interest added (*b*)	Depositors' balances at end of year	Deposits	With-drawals (*b*)	Interest added (*b*)	Depositors' balances at end of year
New South Wales	2,127,108	2,040,774	50,098	1,719,644	2,217,560	2,166,572	57,149	1,827,781
Victoria	2,184,056	2,087,078	44,462	1,620,408	2,440,714	2,365,717	50,574	1,745,979
Queensland	731,558	698,296	17,412	593,026	769,191	744,509	19,944	637,652
South Australia	671,412	643,280	15,332	519,268	721,481	699,068	17,176	558,857
Western Australia	345,734	331,250	7,404	261,654	397,581	375,075	8,711	292,871
Tasmania	142,382	135,516	4,100	135,736	153,444	145,489	4,710	148,401
Northern Territory	15,456	14,608	244	9,180	18,059	16,954	301	10,586
Australian Capital Territory	51,734	48,134	760	27,648	62,114	59,139	928	31,551
Australia	**6,269,440**	**5,998,936**	**139,812**	**4,886,564**	**6,780,144**	**6,572,523**	**159,493**	**5,253,678**

(*a*) *See* footnote (*b*) to table above. (*b*) Includes inter-branch transfers.

Savings banks—depositors' balances

The amount at credit of depositors' accounts and the average per head of population for each State and Territory at the end of June 1962 to 1966 are shown in the following table. Deposit stock and non-interest bearing cheque accounts at the State Savings Bank of Victoria and the Savings Bank of South Australia and fixed deposit accounts at the Trustee Savings

Banks in Tasmania are included in the depositors' balances shown below. Separate details are not available.

SAVINGS BANKS: DEPOSITORS' BALANCES IN AUSTRALIA JUNE 1962 TO 1966

End of June(*a*)—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AMOUNT ($ million)									
1962 . . .	1,250	1,142	412	362	181	102	6	15	3,470
1963 . . .	1,408	1,298	470	416	209	113	7	18	3,940
1964 . . .	1,583	1,479	542	476	240	125	8	23	4,476
1965 . . .	1,720	1,620	593	519	262	136	9	28	4,887
1966 . . .	1,828	1,746	638	559	293	148	11	32	5,254
PER HEAD OF POPULATION ($)									
1962 . . .	313.73	382.82	267.09	367.51	239.70	288.11	219.22	221.56	324.32
1963 . . .	347.95	427.04	300.07	412.94	268.66	312.93	231.04	251.58	361.34
1964 . . .	385.82	476.48	339.09	459.87	300.89	342.61	246.37	289.93	402.69
1965 . . .	412.38	512.41	363.29	488.14	321.66	369.11	262.99	312.56	431.18
1966 . . .	431.99	542.60	383.84	512.37	350.50	399.77	284.81	328.95	455.23

(*a*) Private savings banks at last Wednesday in June, Launceston Bank for Savings at last Monday in June, other savings banks at end of June.

Savings banks—cheque accounts

At most savings banks cheque accounts are available to non-profit organisations such as friendly, co-operative and charitable societies. Similar facilities are also available to other depositors at The State Savings Bank of Victoria and The Savings Bank of South Australia. Details of the transactions on these accounts during the year ended June 1966 (excluding The Savings Bank of South Australia), together with the number of operative accounts and the amount on deposit at the end of June 1966, were as follows: deposits during the year, $1,512.9 million; withdrawals during the year, $1,500.8 million; interest added during the year, $2.7 million; amount on deposit at end of year, $145.2 million; number of operative accounts at the end of year, 315,819. These figures are included in the statistics in previous paragraphs.

School savings banks

Agencies of the savings banks have been established at most of the schools throughout Australia. Particulars of operative accounts within Australia at the end of June 1962 to 1966 appear below.

SCHOOL SAVINGS BANKS: AUSTRALIA, JUNE 1962 TO 1966

End of June(*a*)—	Number of school agencies	Number of operative accounts	Deposits	Deposits per operative account
		'000	$'000	$
1962 . . .	9,444	1,219	18,449	15.13
1963 . . .	9,551	1,255	19,331	15.41
1964 . . .	9,878	1,294	20,374	15.75
1965 . . .	9,544	1,364	22,055	16.16
1966 . . .	9,999	1,390	23,313	16.77

(*a*) *See* footnote (*a*) to table above.

Savings banks—assets

The assets within Australia of all savings banks at the end of June 1965 and 1966 are shown in the following table. In the table on pages 709–10 assets are shown at balance-sheet date which are not in June for some banks. In addition, the table on pages 709–10 excludes statistics for the Savings Bank Division of the Rural and Industries Bank of Western Australia, which are included in the table below.

SAVINGS BANKS: ASSETS WITHIN AUSTRALIA(*a*), JUNE 1965 AND 1966
($ million)

	End of June(*b*)—	
	1965	1966
Coin, bullion and Australian notes	10.8	10.7
Deposits with Reserve Bank	430.3	419.2
Deposits in Australia with trading banks	117.5	129.0
Australian public securities—		
Commonwealth and States (including Treasury bills and Treasury notes)	2,066.1	2,125.8
Local government and semi-governmental authorities	1,092.3	1,198.8
Other securities	5.1	5.1
Loans to authorised dealers in the short-term money market	28.8	34.2
Cheques and bills of other banks and balances with and due from other banks	0.4	0.5
Loans, advances and bills discounted—		
Housing	1,185.2	1,358.5
Other	131.7	176.5
Bank premises, furniture and sites	63.0	68.8
Bills receivable and all other assets	19.0	18.8
Total	**5,150.3**	**5,545.9**

(*a*) Includes assets in Papua, New Guinea and other external Territories. (*b*) *See* footnote (*b*) to first table on page 713.

Savings banks—classification of depositors' balances

The classification of deposits published by savings banks does not permit a fully detailed analysis for Australia as a whole, but the classification at 30 June 1962 to 1966 of the combined deposits for The State Savings Bank of Victoria and The Savings Bank of South Australia is shown below.

STATE SAVINGS BANKS: CLASSIFICATION OF DEPOSITS
30 JUNE 1962 TO 1966
(Per cent)

30 June—	Up to $2,000	Over $2,000
1962	57.31	42.69
1963	54.41	45.59
1964	51.89	48.11
1965	50.86	49.14
1966	49.90	50.10

Savings banks—rates of interest on deposits

SAVINGS BANKS: INTEREST RATES ON DEPOSITS(*a*), 30 JUNE 1962 TO 1966

(Per cent per annum)

Size of account	30 June—				
	1962	1963	1964	1965	1966
Ordinary accounts(*b*)—					
Up to $2,000	3.50	3.00	3.25	3.50	3.50
$2,001 to $3,000	3.50	5.00	3.25	3.50	3.50
$3,001 to $4,000	3.50	3.00	3.25	3.50	3.50
$4,001 to $5,000	3.50	3.00	3.25	3.50	3.50
$5,001 to $6,000	3.50	3.00	3.25	3.50	3.50
Friendly and other society accounts—					
Up to $4,000	3.50	3.00	3.25	3.50	3.50
$4,001 to $5,000	3.50	3.00	3.25	3.50	3.50
$5,001 to $6,000	3.50	3.00	3.25	3.50	3.50
$6,001 and over	2.00	1.50	1.75	2.00	2.00

(*a*) Rates allowed by the Commonwealth Savings Bank, private savings banks and The State Savings Bank of Victoria. Trustee savings banks and The Savings Bank of South Australia allow slightly higher rates of interest. (*b*) No interest is payable on amounts in excess of the maximum amount shown.

Savings banks—predominant lending rates

The following table shows the predominant lending rates in respect of different types of loans by savings banks from 1961 to 1967.

SAVINGS BANKS: PREDOMINANT LENDING RATES OF INTEREST

(Per cent per annum)

Date of change in rate	Loans to local government authorities	*Crédit foncier* housing loans(*a*)	Loans to co-operative housing
1961—1 January	5.75—5.875	5.25—5.75	(*b*) 5.25—5.50
1962—26 January	5.375—5.50	..	..
1963—11 April	..	4.75—5.25	4.75—5.00
17 June	5.00—5.125	..	..
2 October	4.875—5.000	..	..
1964—1 June	..	4.75—5.50	4.75—5.25
August	5.50	..	..
1965—1 April	..	5.00—5.75	5.00—5.50
8 April	5.75	..	..
1967—2 February	5.875	..	..

(*a*) The rate of interest on *crédit foncier* loans may be varied only at the expiration of each ten years of the currency of a loan. (*b*) The changes in interest rates on 1 January 1961 applied to all societies then financed and to future loans.

FINANCE COMPANIES

The section dealing with finance companies, which was included in this chapter in previous issues of the Year Book is being extensively revised and further information is included in the Appendix of this issue.

INSURANCE

Legislation

Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to 'insurance other than State insurance; also State insurance extending beyond the limits of the State concerned'. Commonwealth legislation includes the *Marine Insurance Act* 1909–1966 defining the limits of marine insurance and regulating the terms of contracts, etc., the *Insurance Act* 1932–1966 requiring the lodgment of deposits by insurance companies, and the *Life Insurance Act* 1945–1965 generally regulating life insurance business in Australia. The *Marine Insurance Act* 1909–1966 and the *Insurance Act* 1932–1966 have limited application, and except for life insurance business, which is regulated by the *Life Insurance Act* 1945–1965, insurance business is conducted almost entirely under State laws.

Insurance Act 1932-1966

Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to lodge a deposit with the Commonwealth Treasurer. Money deposited is invested by the Treasurer in prescribed securities selected by the depositor, and all interest is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies. Deposits held by States on 1 February 1932 could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act: staff superannuation schemes; schemes of religious organisations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and under the *Life Insurance Act* 1945–1965 ceased to apply to life insurance business.

Life Insurance Act 1945-1965

The objects of this Act are: (*a*) to replace all State legislation on the subject of life insurance, except that relating to the life insurance operations of State Government insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (*b*) to appoint an Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; (*c*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency. The Act came into operation on 20 June 1946. A summary of the provisions of the Act is given in Year Book No. 37, pages 595–7.

Deposits under Insurance Acts

Deposits lodged under the Insurance Acts at 30 June 1966 totalled $33.9 million, comprising $4.3 million held by the Commonwealth in respect of life insurance, and $29.6 million held by the Commonwealth and $20,060 held by the State of New South Wales in respect of other forms of insurance. The deposits consisted of Commonwealth Government securities $20.4 million, United Kingdom Government securities $1.7 million, fixed deposits $0.4 million, bank guarantees and undertakings $8.7 million, corporation debentures and stock $0.9 million, and titles and mortgages $1.8 million.

Life insurance

Since 1947, returns lodged under the *Life Insurance Act* 1945–1965 have been used to compile life insurance statistics. Except where otherwise indicated, the figures in the succeeding paragraphs refer only to Australian business. Business in the Territories of Papua and New Guinea is, however, included in the Australian figures. The information shown has been compiled from returns of life insurance business submitted in the financial years which ended during the year stated.

Offices transacting business

The number of offices which transacted life insurance business in Australia during 1965 was 45, including 12 overseas companies. Of the 33 Australian offices, 6 are purely mutual, including one which transacts general business in respect of which share capital is used, 25 are public companies, and 2 are State Government institutions. Of the total, 33 transacted ordinary business only and the remainder both ordinary and industrial business. Where possible, ordinary, industrial and superannuation business have been kept separate in the following tables.

Australian business—policies in existence

LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA, STATES AND TERRITORIES, 1965

State or Territory (*a*)	Insurance and endowment policies				Annuity policies		
	Number of policies	Sum insured ($'000)	Bonus additions ($'000)	Annual premiums ($'000)	Number of policies	Annuities per annum ($'000)	Annual premiums ($'000)
ORDINARY BUSINESS							
New South Wales	1,290,932	3,090,136	327,046	85,462	830	352	3
Victoria	1,062,297	2,936,951	289,488	76,272	844	1,115	17
Queensland(*b*)	715,163	1,685,979	181,479	41,960	208	1,344	1
South Australia(*c*)	449,030	1,059,841	102,423	28,919	206	474	5
Western Australia	305,888	742,613	74,488	20,249	136	387	5
Tasmania	135,825	329,419	34,561	8,603	82	89	3
Australian Capital Territory	99,678	612,623	39,087	13,509	98	105	1
Australia(*b*)	**4,058,813**	**10,457,561**	**1,048,572**	**274,973**	**2,404**	**3,865**	**35**
INDUSTRIAL BUSINESS							
New South Wales	1,028,306	336,356	22,302	14,207	..	..	..
Victoria	830,578	264,161	18,019	10,979	..	..	..
Queensland(*b*)	355,206	109,093	7,015	4,690	..	..	..
South Australia(*c*)	289,109	82,340	5,415	3,525	..	..	..
Western Australia	172,622	53,565	3,572	2,258	..	..	..
Tasmania	61,709	18,375	1,259	768	..	..	..
Australian Capital Territory	17,616	6,987	481	296	..	..	..
Australia(*b*)	**2,755,146**	**870,877**	**58,064**	**36,724**	..	..	..
SUPERANNUATION BUSINESS							
New South Wales	270,002	485,535	44,431	15,693	158	3,583	928
Victoria	121,849	1,226,995	59,169	26,823	497	7,481	2,857
Queensland(*b*)	73,824	238,892	17,151	8,050	19	106	23
South Australia(*c*)	43,925	184,036	17,211	6,708	48	123	20
Western Australia	35,959	139,039	9,997	4,277	23	99	17
Tasmania	15,482	82,870	8,079	2,653	34	64	12
Australian Capital Territory	84,796	1,241,733	36,892	21,312	77	11,995	1,217
Australia(*b*)	**645,837**	**3,599,100**	**192,931**	**85,515**	**856**	**23,452**	**5,074**

(*a*) Location of register of policies. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

LIFE INSURANCE: AUSTRALIA

1950 TO 1965

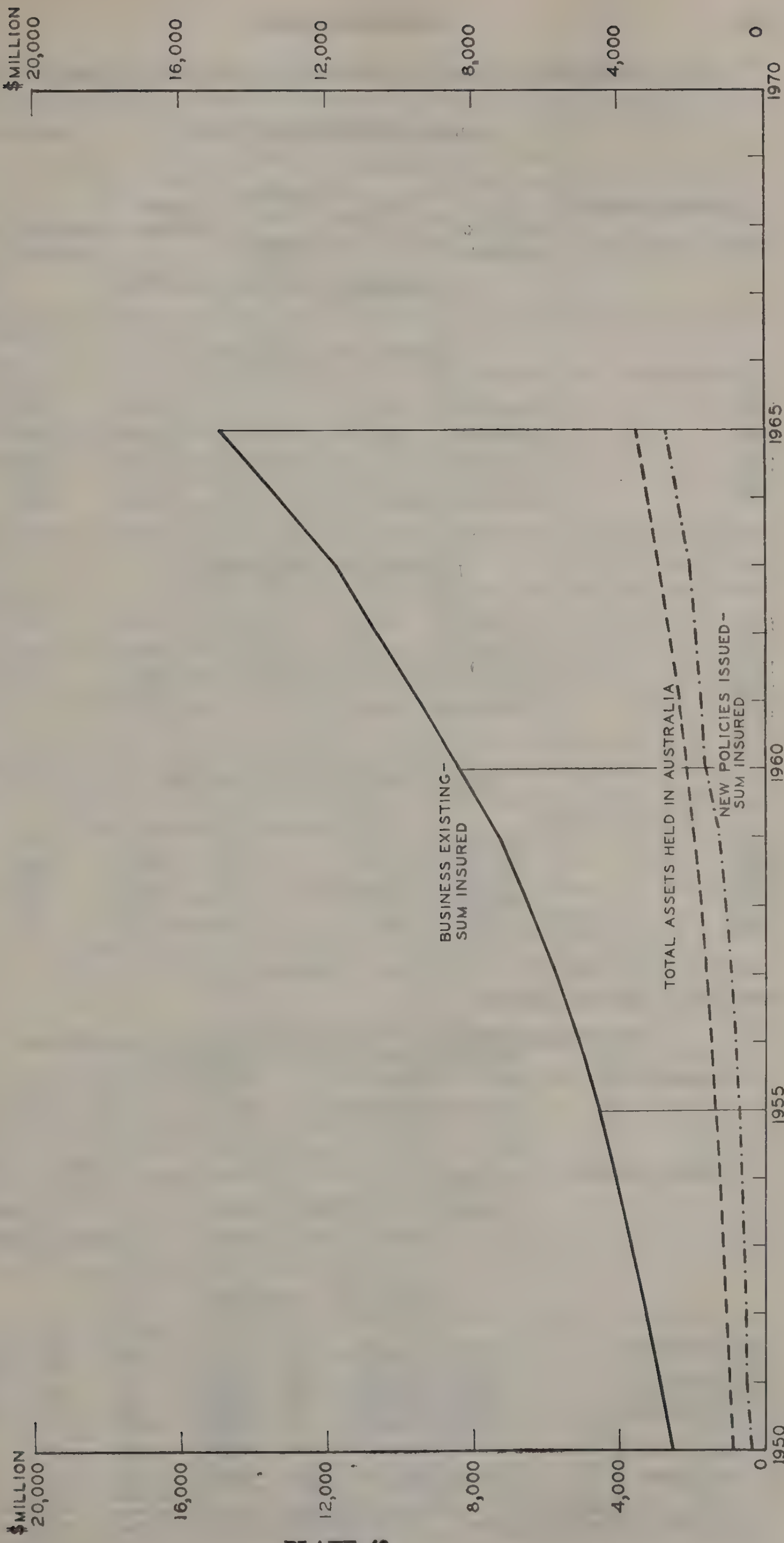


PLATE 40

LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA, 1961 TO 1965

At end of year—	Insurance and endowment policies				Annuity policies	
	Number of policies	Sum insured ($ million)	Average sum insured per policy ($'000)	Annual premiums ($ million)	Number of policies	Annuities per annum ($ million)
ORDINARY BUSINESS						
1961 . . .	3,580,643	6,746.4	1.9	195.2	2,754	0.9
1962 . . .	3,690,996	7,543.5	2.0	212.0	2,606	0.9
1963 . . .	3,794,150	8,377.0	2.2	229.8	2,618	1.0
1964 . . .	3,921,635	9,384.6	2.4	251.4	2,588	1.0
1965 . . .	4,058,813	10,457.6	2.6	275.0	2,404	3.9
INDUSTRIAL BUSINESS						
1961 . . .	3,198,822	706.8	0.2	33.1	..	..
1962 . . .	3,075,967	743.5	0.2	33.1	..	..
1963 . . .	2,952,808	777.1	0.3	34.0	..	..
1964 . . .	2,850,977	823.2	0.3	35.3	..	..
1965 . . .	2,755,146	870.9	0.3	36.7	..	..
SUPERANNUATION BUSINESS						
1961 . . .	620,848	1,997.1	3.2	51.2	1,582	22.2
1962 . . .	599,514	2,310.2	3.9	58.0	1,689	24.1
1963 . . .	607,297	2,632.8	4.3	65.1	1,757	25.3
1964 . . .	617,184	3,096.1	5.0	73.8	980	26.6
1965 . . .	645,837	3,599.1	5.6	85.5	856	23.5

New policies issued in Australia

LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA STATES AND TERRITORIES, 1965

State or Territory(*a*)	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured ($'000)	Premiums		Number of policies	Annuities per annum ($'000)	Premiums	
			Single ($'000)	Annual ($'000)			Single ($'000)	Annual ($'000)
ORDINARY BUSINESS								
New South Wales . .	114,230	469,939	313	11,526	34	26	128	..
Victoria	98,464	509,373	385	10,986	31	48	396	2
Queensland(*b*) . . .	59,590	252,876	109	5,618	7	5	33	..
South Australia(*c*) . .	44,734	174,569	95	4,172	10	7	34	..
Western Australia . .	30,259	126,760	65	2,931	12	6	47	..
Tasmania	12,434	49,471	31	1,168	1	..	3	..
Australian Capital Territory .	17,476	123,430	230	2,659	7	5	61	..
Australia(*b*) . . .	377,187	1,706,419	1,228	39,060	102	97	702	2

(*a*) Location of register of policies. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1965—*continued*

State or Territory(*a*)	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured ($'000)	Premiums: Single ($'000)	Premiums: Annual ($'000)	Number of policies	Annuities per annum ($'000)	Premiums: Single ($'000)	Premiums: Annual ($'000)
INDUSTRIAL BUSINESS								
New South Wales	51,548	49,180	..	1,954	..	..	..	..
Victoria	34,482	33,610	..	1,273	..	..	..	..
Queensland(*b*)	17,949	15,243	..	631	..	..	..	..
South Australia(*c*)	14,138	11,254	..	465	..	..	..	..
Western Australia	8,413	7,637	..	308	..	..	..	..
Tasmania	2,845	2,515	..	100	..	..	..	..
Australian Capital Territory	874	898	..	36	..	..	..	..
Australia(*b*)	**130,249**	**120,337**	..	**4,767**	..	..	..	..
SUPERANNUATION BUSINESS								
New South Wales	22,641	83,253	268	2,469	4	706	82	230
Victoria	20,125	312,716	4,278	6,204	49	1,336	1,464	881
Queensland(*b*)	16,671	71,351	54	2,307	..	7	..	1
South Australia(*c*)	5,614	38,141	153	1,317	2	14	40	1
Western Australia	4,742	30,663	72	886	1	11	..	2
Tasmania	1,905	14,970	23	471	2	17	18	3
Australian Capital Territory	17.627	360,913	4,128	5,923	7	4,357	83	340
Australia(*b*)	**89,325**	**912,008**	**8,977**	**19,578**	**65**	**6,448**	**1,687**	**1,457**

(*a*) Location of register of policies. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1961 TO 1965

Year	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured ($'000)	Premiums: Single ($'000)	Premiums: Annual ($'000)	Number of policies	Annuities per annum ($'000)	Premiums: Single ($'000)	Premiums: Annual ($'000)
ORDINARY BUSINESS								
1961	354,671	1,206,920	722	29,316	201	106	678	6
1962	334,072	1,286,156	456	29,980	95	62	502	..
1963	343,450	1,364,384	1,822	31,606	119	96	698	2
1964	362,118	1,544,162	835	35,338	115	79	615	3
1965	377,187	1,706,419	1,228	39,060	102	97	702	2
INDUSTRIAL BUSINESS								
1961	176,389	88,212	..	3,812	..	..	..	..
1962	156,316	104,508	..	4,304	..	..	..	..
1963	130,681	105,970	..	4,232	..	..	..	..
1964	127,164	115,170	..	4,516	..	..	..	..
1965	130,249	120,337	..	4,767	..	..	..	..
SUPERANNUATION BUSINESS								
1961	79,503	451,784	5,714	10,270	52	3,938	1,730	982
1962	75,459	485,840	1,844	11,088	161	3,900	1,208	1,016
1963	79,299	559,880	3,216	12,510	155	4,260	1,080	1,098
1964	78,353	764,038	5,391	15,948	216	4,576	1,339	1,015
1965	89,325	912,008	8,977	19,578	65	6,448	1,687	1,457

Policies discontinued or reduced in Australia

LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA STATES AND TERRITORIES, 1965(*a*)

State or Territory(*b*)	Insurance and endowment policies			Annuity policies		
	Number of policies	Sum insured ($'000)	Annual premiums ($'000)	Number of policies	Annuities per annum ($'000)	Annual premiums ($'000)
			ORDINARY BUSINESS			
New South Wales	84,257	208,183	5,468	81	24	1
Victoria	68,890	222,966	5,155	96	42	1
Queensland(*c*)	36,761	81,810	1,977	24	5	..
South Australia(*d*)	25,933	63,738	1,593	4	2	..
Western Australia	17,391	39,450	1,060	13	2	..
Tasmania	9,068	21,958	530	4	4	..
Australian Capital Territory	−2,291	−2,870	−239	2	1	..
Australia(*c*)	**240,009**	**635,236**	**15,543**	**224**	**78**	**2**
			INDUSTRIAL BUSINESS			
New South Wales	86,550	30,723	1,397	..	..	..
Victoria	67,587	19,674	894	..	..	..
Queensland(*c*)	26,218	8,188	378	..	..	..
South Australia(*d*)	25,013	6,961	321	..	..	..
Western Australia	13,546	4,666	212	..	..	..
Tasmania	6,669	2,154	95	..	..	..
Australian Capital Territory	497	253	13	..	..	..
Australia(*c*)	**226,080**	**72,618**	**3,311**	..	..	..
			SUPERANNUATION BUSINESS			
New South Wales	23,431	55,859	1,943	11	215	151
Victoria	17,213	147,716	2,927	10	967	339
Queensland(*c*)	6,924	17,969	718	..	20	4
South Australia(*d*)	4,347	15,164	537	5	7	1
Western Australia	3,888	10,871	364	5	10	..
Tasmania	1,893	8,387	251	3	6	1
Australian Capital Territory	2,974	151,172	1,082	158	8,364	1,926
Australia(*c*)	**60,670**	**407,136**	**7,822**	**192**	**9,589**	**2,423**

(*a*) Includes policies matured, surrendered, forfeited, transferred to other State registers, converted to other classes of business, etc. (*b*) Location of register of policies. (*c*) Includes Papua and New Guinea. (*d*) Includes Northern Territory.

Minus sign (−) denotes an increase in existing business in the registers concerned due to an excess of transfers from other States or from overseas, or conversions from other classes of business over discontinuances in those registers.

LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA, 1961 TO 1965(*a*)

Year	Insurance and endowment policies			Annuity policies		
	Number of policies	Sum insured ($'000)	Annual premiums ($'000)	Number of policies	Annuities per annum ($'000)	Annual premiums ($'000)
ORDINARY BUSINESS						
1961 . . .	234,698	480,378	13,918	480	2,012	536
1962 . . .	223,719	489,028	13,236	243	88	6
1963 . . .	240,296	530,906	13,802	107	42	10
1964 . . .	234,633	536,573	13,680	144	27	−1
1965 . . .	240,009	635,236	15,543	224	78	2
INDUSTRIAL BUSINESS						
1961 . . .	317,570	67,350	3,352	..	..	..
1962 . . .	279,171	67,818	3,290	..	..	..
1963 . . .	253,840	72,390	3,408	..	..	..
1964 . . .	228,995	69,073	3,198	..	..	..
1965 . . .	226,080	72,618	3,311	..	..	..
SUPERANNUATION BUSINESS						
1961 . . .	108,274	125,244	3,818	−209	1,906	534
1962 . . .	96,793	172,682	4,212	54	2,014	1,042
1963 . . .	71,516	237,356	5,440	87	2,986	852
1964 . . .	68,419	300,734	7,296	994	3,311	897
1965 . . .	60,670	407,136	7,822	192	9,589	2,423

(*a*) *See* footnote (*a*) to preceding table.

Minus sign (−) denotes an increase in existing business in the registers concerned due to an excess of transfers from overseas registers to Australian registers, or conversions from other classes of business over discontinuances in those registers.

LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA BY CAUSE OF DISCONTINUANCE OR REDUCTION, 1961 TO 1965(*a*)(*b*)

Year	Death or maturity	Surrender	Forfeiture	Other	Total
ORDINARY BUSINESS					
NUMBER OF POLICIES					
1961 . . .	64,123	83,834	69,038	17,703	234,698
1962 . . .	68,027	81,132	71,538	3,022	223,719
1963 . . .	71,274	90,858	71,070	7,094	240,296
1964 . . .	76,288	91,291	65,390	1,664	234,633
1965 . . .	78,611	99,413	62,085	−100	240,009

(*a*) Excludes annuities. (*b*) *See* footnote (*a*) on page 722.

LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA, BY CAUSE OF DISCONTINUANCE OR REDUCTION, 1961 TO 1965(*a*)(*b*)—*continued*

Year	Death or maturity	Surrender	Forfeiture	Other	Total
ORDINARY BUSINESS—*continued*					
SUM INSURED ($'000)					
1961	46,568	138,786	205,520	89,504	480,378
1962	51,706	144,680	216,688	75,954	489,028
1963	56,128	185,152	229,140	60,486	530,906
1964	63,938	200,775	228,508	43,352	536,573
1965	69,642	275,498	236,586	53,510	635,236
INDUSTRIAL BUSINESS					
NUMBER OF POLICIES					
1961	192,833	77,143	47,547	47	317,570
1962	161,387	75,028	41,205	1,551	279,171
1963	139,268	74,481	38,930	1,161	253,840
1964	131,755	65,017	31,531	692	228,995
1965	129,636	62,650	31,570	2,224	226,080
SUM INSURED ($'000)					
1961	21,186	24,062	22,080	22	67,350
1962	18,206	24,452	24,870	290	67,818
1963	16,472	25,914	29,844	160	72,390
1964	16,507	23,960	28,454	152	69,073
1965	16,959	24,222	31,086	353	72,618
SUPERANNUATION BUSINESS					
NUMBER OF POLICIES					
1961	9,419	68,415	587	29,853	108,274
1962	9,517	32,848	972	53,456	96,793
1963	9,624	33,544	3,773	24,575	71,516
1964	10,241	34,949	1,546	21,683	68,419
1965	10,677	35,231	1,853	12,909	60,670
SUM INSURED ($'000)					
1961	11,644	136,116	5,628	−28,144	125,244
1962	13,166	131,658	6,374	21,484	172,682
1963	14,718	138,134	13,892	70,612	237,356
1964	17,258	173,784	11,804	97,888	300,734
1965	21,514	222,612	16,427	146,582	407,136

(*a*) Excludes annuities. (*b*) *See* footnote (*a*) on page 722.

Minus sign (−) denotes an increase in existing business due to an excess of transfers from overseas registers to Australian registers, or conversions from other classes of business over discontinuances.

Australian revenue from premiums

Details of revenue from premiums in respect of all offices transacting business in Australia are shown in the following tables for each State and the Australian Capital Territory for the year 1965 and for Australia for the years 1961 to 1965.

LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, STATES AND TERRITORIES, 1965

($'000)

State or Territory(*a*)	Insurance and endowment premiums		Consideration for annuities		Total
	Single premiums	Other premiums	Single premiums	Other premiums	
ORDINARY BUSINESS					
New South Wales	320	84,098	155	3	84,576
Victoria	464	76,402	396	4	77,265
Queensland(*b*)	142	41,554	40	..	41,737
South Australia(*c*)	91	28,684	34	1	28,810
Western Australia	63	20,251	47	1	20,363
Tasmania	31	8,492	3	2	8,528
Australian Capital Territory	228	12,239	39	..	12,506
Australia(*b*)	**1,339**	**271,721**	**714**	**12**	**273,786**
INDUSTRIAL BUSINESS					
New South Wales	..	13,647	..	..	13,647
Victoria	..	10,634	..	..	10,634
Queensland(*b*)	..	4,506	..	..	4,506
South Australia(*c*)	..	3,412	..	..	3,412
Western Australia	..	2,176	..	..	2,176
Tasmania	..	750	..	..	750
Australian Capital Territory	..	279	..	..	279
Australia(*b*)	..	**35,404**	..	..	**35,404**
SUPERANNUATION BUSINESS					
New South Wales	309	17,931	82	998	19,319
Victoria	4,280	29,960	1,482	2,952	38,673
Queensland(*b*)	43	6,809	..	25	6,876
South Australia(*c*)	154	6,498	40	19	6,711
Western Australia	72	4,348	..	53	4,473
Tasmania	23	2,598	..	9	2,630
Australian Capital Territory	4,086	29,854	83	3,264	37,287
Australia(*b*)	**8,966**	**97,998**	**1,687**	**7,320**	**115,971**

(*a*) Location of register of policies. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1961 TO 1965

($'000)

Year	Ordinary business		Industrial business	Superannuation business		Total all business combined
	Insurance and endowment premiums	Consideration for annuities		Insurance and endowment premiums	Consideration for annuities	
1961 . .	258,368	9,128	31,364	(a)		298,860
1962 . .	209,472	524	32,284	67,290	8,266	317,836
1963 . .	228,978	738	32,860	77,108	8,526	348,210
1964 . .	248,826	647	34,027	88,824	8,515	380,839
1965 . .	273,060	726	35,404	106,964	9,007	425,161

(a) Included with ordinary business.

Claims, etc., paid in Australia

Details of the claims, etc., paid on policies in each State and the Australian Capital Territory during the year 1965 and in Australia during the years 1961 to 1965 are shown in the following tables.

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, STATES AND TERRITORIES, 1965

($'000)

State or Territory(a)	Claims		Surrenders	Annuities	Cash bonuses	Total
	Death or disability	Maturity				
ORDINARY BUSINESS						
New South Wales . .	15,096	16,545	11,855	340	202	44,039
Victoria	13,385	13,311	9,159	293	196	36,344
Queensland(b) . . .	6,598	6,587	4,905	62	85	18,237
South Australia(c) . .	4,015	4,447	3,311	48	63	11,885
Western Australia . .	2,990	3,061	2,324	37	59	8,471
Tasmania	1,290	1,073	1,099	27	30	3,519
Australian Capital Territory .	2,211	472	692	70	14	3,460
Australia(b) . . .	**45,586**	**45,496**	**33,347**	**877**	**650**	**125,956**
INDUSTRIAL BUSINESS						
New South Wales . .	1,036	6,388	2,164	..	..	9,588
Victoria	842	6,296	1,506	..	..	8,643
Queensland(b) . . .	337	2,162	669	..	..	3,169
South Australia(c) . .	256	1,943	497	..	..	2,696
Western Australia . .	176	942	382	..	..	1,499
Tasmania	47	495	143	..	..	685
Australian Capital Territory .	19	86	37	..	..	142
Australia(b) . . .	**2,713**	**18,311**	**5,397**	..	..	**26,422**

(a) Location of register of policies. (b) Includes Papua and New Guinea. (c) Includes Northern Territory.

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, STATES AND TERRITORIES, 1965—*continued*

($'000)

State or Territory(*a*)	Claims		Surrenders	Annuities	Cash bonuses	Total
	Death or disability	Maturity				
SUPERANNUATION BUSINESS						
New South Wales . .	2,057	2,525	3,372	183	30	8,167
Victoria	4,470	4,271	8,281	562	756	18,341
Queensland(*b*) . . .	580	838	1,160	8	10	2,595
South Australia(*c*) . .	649	1,116	728	14	..	2,507
Western Australia . .	367	487	667	8	1	1,531
Tasmania	356	447	463	8	1	1,275
Australian Capital Territory	4,055	2,666	9,547	818	59	17,145
Australia(*b*) . .	**12,534**	**12,350**	**24,218**	**1,602**	**857**	**51,561**

(*a*) Location of register of policies. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1961 TO 1965

($'000)

Year	Claims	Surrenders	Annuities	Cash bonuses	Total
ORDINARY BUSINESS					
1961(*a*) . . .	72,892	42,034	1,396	1,178	117,500
1962 . . .	66,302	24,206	758	390	91,656
1963 . . .	72,692	27,872	786	602	101,952
1964 . . .	82,774	28,921	865	507	113,067
1965 . . .	91,082	33,347	877	650	125,956
INDUSTRIAL BUSINESS					
1961 . . .	23,798	4,690	..	..	28,488
1962 . . .	20,860	5,030	..	..	25,890
1963 . . .	19,236	5,574	..	..	24,810
1964 . . .	19,969	5,146	..	..	25,115
1965 . . .	21,024	5,397	..	..	26,422
SUPERANNUATION BUSINESS					
1962 . . .	15,000	14,188	894	488	30,570
1963 . . .	16,450	14,508	1,208	756	32,922
1964 . . .	20,112	20,532	1,281	902	42,827
1965 . . .	24,884	24,218	1,602	857	51,561

(*a*) Includes superannuation business.

Total revenue and expenditure

The following tables show particulars of the total life insurance revenue derived and of the total expenditure by life insurance offices both within and beyond Australia during each of the years 1961 to 1965.

LIFE INSURANCE: TOTAL REVENUE, 1961 TO 1965
($'000)

Year	Insurance and endowment premiums	Consideration for annuities granted	Net interest, dividends and rents	All other revenue	Total revenue	
					Inside Australia	Outside Australia
ORDINARY BUSINESS(*a*)						
1961	343,580	16,904	129,124	37,832	395,250	132,190
1962	296,582	20,600	125,272	10,582	303,548	149,488
1963	323,118	7,126	140,570	15,470	337,968	148,316
1964	350,532	10,758	155,022	14,648	367,711	163,249
1965	385,424	11,662	172,379	18,095	407,905	179,655
INDUSTRIAL BUSINESS						
1961	36,206	..	15,296	640	44,982	7,162
1962	37,196	..	16,232	944	47,078	7,294
1963	37,786	..	17,258	1,776	48,334	8,486
1964	38,787	..	17,703	257	49,573	7,174
1965	40,264	..	18,612	305	51,776	7,404
SUPERANNUATION BUSINESS						
1962	73,486	9,242	26.408	6,378	105,686	9,828
1963	83,836	9,806	31,080	4,576	118,614	10,684
1964	96,326	9,468	36,249	2,224	132,697	11,570
1965	115,352	10,316	41.761	4,405	158,690	13,143

(*a*) Prior to 1962, includes superannuation business.

LIFE INSURANCE: TOTAL EXPENDITURE, 1961 TO 1965

($'000)

Year	Claims and annuities paid	Surrenders	Cash bonuses paid to policy-holders	Commission	Salaries and directors' fees	All other expenditure	Total expenditure	
							Inside Australia	Outside Australia
ORDINARY BUSINESS(*a*)								
1961 . .	112,632	52,948	1,642	28.338	20,844	29,512	176,780	69,136
1962 . .	107,712	34,780	868	28,618	19,156	27,744	146,904	71,974
1963 . .	119,830	38,872	1,002	30,920	20,944	29,684	160,960	80,292
1964 . .	131,522	40,998	1,197	34,160	23,132	25.988	172.341	84,656
1965 . .	145,087	47,544	1,160	37,649	25,528	35,764	197,348	95,383
INDUSTRIAL BUSINESS								
1961 . .	28,922	5,186	..	5,370	4,492	3,814	40,272	7,512
1962 . .	25,688	5,618	..	5,504	4,618	3,650	37,834	7,244
1963 . .	23,716	6,174	..	5,358	4,674	4,848	37,882	6,888
1964 . .	24,006	5,742	..	5,610	4,769	3,430	37,172	6,385
1965 . .	25,078	6,001	..	5,740	4,782	4,673	39,736	6,536
SUPERANNUATION BUSINESS								
1962 . .	17,436	15,544	528	3,398	3,710	7,154	43,486	4,284
1963 . .	19,498	16,042	852	3,980	4,134	7,690	47,220	4,976
1964 . .	23,525	22,951	973	4,626	4,723	10,847	61,111	6,534
1965 . .	28,945	26,543	932	5,326	5,668	14,288	74,114	7,591

(*a*) Prior to 1962, includes superannuation business.

Liabilities and assets

The liabilities of the Australian offices consist mainly of their insurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian offices. Separate details of liabilities in respect of Australian business are not available.

Total liabilities and assets. In the two tables which follow the details of liabilities and assets relate to all business (Australian and overseas) of Australian companies, the life insurance business of the two State Government offices, and the Australian business only of the twelve overseas companies operating in Australia. For various reasons several offices do not attempt the dissection of liabilities and assets according to type of business, and, therefore, the figures in the following tables relate to all types of business combined.

LIFE INSURANCE: TOTAL LIABILITIES, 1965

($ million)

	Life insurance business	Other classes of business	Total liabilities
Shareholders' capital—			
Authorised	..	58.6	58.6
Less unissued	..	37.5	37.5
Subscribed capital	..	21.1	21.1
Paid-up—			
In money	..	19.8	19.8
Otherwise than in money	..	4.8	4.8
Total, paid-up capital	..	24.6	24.6
Life insurance statutory funds—			
Ordinary business	3,292.9	..	3,292.9
Industrial business	351.6	..	351.6
Superannuation business	745.5	..	745.5
Total, statutory funds	4,390.0	..	4,390.0
Funds in respect of other classes of business	..	13.8	13.8
General reserves	52.4	9.8	62.2
Profit and loss account balance	..	1.1	1.1
Total, shareholders' capital, insurance funds and reserves	*4,442.5*	*49.3*	*4,491.8*
Other liabilities—			
Deposits	29.6	16.2	45.9
Staff provident and superannuation funds	1.8	1.0	2.8
Claims admitted or intimated but not paid	46.8	12.7	59.5
Premiums paid in advance and in suspense	3.8	..	3.8
Sundry creditors	21.0	2.4	23.4
Bank overdraft	33.6	0.5	34.2
Reserves and provisions for taxation	30.4	5.6	36.0
All other liabilities	4.6	7.1	11.8
Grand total	**4,614.2**	**94.8**	**4,709.0**

LIFE INSURANCE: TOTAL ASSETS, 1965

($ million)

	Life insurance business	Other classes of business	Total	Amount of assets held in Australia		
				Life insurance business	Other classes of business	Total
Fixed assets—						
Freehold and leasehold property, office premises	405.5	7.7	413.1	312.6	7.7	320.3
Furniture, etc. . . .	6.3	1.5	7.8	4.9	1.5	6.4
Total, fixed assets .	*411.8*	*9.1*	*421.0*	*317.5*	*9.1*	*326.7*
Loans—						
On mortgage . . .	1,284.9	9.2	1,294.0	911.0	9.2	920.2
On policies of the company	164.1	..	164.1	127.4	..	127.4
Other loans . . .	42.9	3.3	46.3	41.0	3.3	44.3
Total, loans . . .	*1,491.9*	*12.5*	*1,504.4*	*1,079.4*	*12.5*	*1,092.0*
Investments—						
Government securities—						
Australia . . .	865.2	5.8	871.0	824.5	5.8	830.3
Other	257.3	1.8	259.1	0.4	..	0.4
Securities of local and semi-governmental bodies .	376.6	2.9	379.4	275.4	1.7	277.1
Other investments . .	1,075.2	51.3	1,126.4	847.6	50.6	898.2
Total, investments .	*2,574.1*	*61.9*	*2,636.0*	*1,947.7*	*58.1*	*2,005.8*
Cash on deposit, current account and in hand .	6.2	2.4	8.7	3.7	2.2	5.9
Other assets(*a*) . . .	130.0	8.9	138.9	100.5	8.6	109.1
Grand total . . .	**4,614.2**	**94.8**	**4,709.0**	**3,448.8**	**90.7**	**3,539.5**

(*a*) Includes advances of premiums.

Assets held in Australia. Details of assets held in Australia for the years 1961 to 1965 are set out in the following table.

LIFE INSURANCE(*a*): ASSETS HELD IN AUSTRALIA, 1961 TO 1965

($ million)

	1961	1962	1963	1964	1965
Freehold and leasehold property . .	144.7	170.8	215.5	255.4	320.3
Government and municipal securities .	777.1	870.0	953.2	1,043.3	1,107.8
Other investments	468.8	534.1	671.6	804.2	898.2
Loans on mortgage	749.9	784.1	815.3	848.7	920.2
Loans on companies' policies . .	89.9	97.6	101.5	113.5	127.4
Other loans	52.3	49.4	46.6	43.7	44.3
All other assets	76.9	90.8	104.5	109.0	121.3
Total	**2,359.7**	**2,596.8**	**2,908.2**	**3,217.8**	**3,539.5**

(*a*) Includes other classes of business.

Loans

In the following table details are given of new loans paid over by life insurance companies during each of the years ended 31 December 1962 to 1966. The information has been compiled from monthly returns furnished by each company. New loans paid over by the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office are not included. Advances of premiums are also excluded.

LIFE INSURANCE COMPANIES: NEW LOANS PAID OVER, BY CLASS OF SECURITY AND STATE OR TERRITORY, 1962 TO 1966

($'000)

	1962	1963	1964	1965	1966
Class of security—					
Mortgage of real estate	94,892	119,746	138,762	159,991	132,638
Companies' policies	21,444	23,494	24,364	30,772	32,168
Other	2,048	1,924	3,248	3,436	3,032
State or Territory(*a*)—					
New South Wales	55,628	65,840	67,104	84,268	75,309
Victoria	31,114	43,780	59,022	60,914	48,896
Queensland(*b*)	10,454	11,474	13,890	17,018	13,513
South Australia(*c*)	9,606	11,112	9,962	12,313	12,096
Western Australia	5,712	8,150	10,544	13,442	11,162
Tasmania	3,672	3,452	4,446	3,965	4,899
Australian Capital Territory	2,198	1,356	1,406	2,280	1,962
Total(*b*)	**118,384**	**145,164**	**166,374**	**194,201**	**167,838**

(*a*) State or Territory of location of mortgage, registration of policy, or residence of borrower. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

Fire, marine and general insurance

The following statistics, which are in respect of the Australian business of companies operating in Australia and State Government insurance offices, conform to the following definitions and should be interpreted in accordance therewith.

(*a*) Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year. When business is increasing, as in recent years, premiums receivable (as shown in the statistics) are greater than 'earned premium income' appropriate to the year. The converse applies when business is declining.

(*b*) Claims or losses include provision for outstanding claims and represent claims or losses incurred in the year. Salvage and other amounts recoverable have been deducted.

(*c*) Contributions to fire brigades, commission and agents' charges, and expenses of management represent mainly charges paid during the year.

(*d*) Taxation represents mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The figures relate to selected items of statistics and are not construable as 'Profit and Loss' statements or 'Revenue Accounts'.

In cases where the business is underwritten in one State and the risk is situated in another, the business is included in the State in which the policy was issued.

During 1965–66 revenue from premiums amounted to $609.6 million, and that from net interest on investments, etc. to $34.9 million, a total of $644.6 million. Expenditure on claims amounted to $384.9 million, contributions to fire brigades $14.7 million, commission and agents' charges $53.6 million, expenses of management $96.9 million, and taxation $17.1 million, a total of $567.2 million.

Premiums and claims

The following tables show the aggregate premium income less returns, rebates and bonuses, and claims or losses less amounts recoverable, for each State and for all classes of insurance other than life for the years 1961–62 to 1965–66.

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS, STATES 1961-62 TO 1965-66

($'000)

State	1961–62	1962–63	1963–64	1964–65	1965–66
GROSS PREMIUMS, LESS RETURNS, REBATES AND BONUSES					
New South Wales(*a*)	168,262	185,492	202,817	230,787	249,616
Victoria	129,701	135,487	145,832	163,408	186,402
Queensland	51,891	54,580	60,962	65,768	71,917
South Australia	33,342	36,951	41,201	44,772	49,433
Western Australia	25,023	27,319	30,025	33,079	37,570
Tasmania	10,211	11,427	12,248	13,567	14,703
Total	**418,431**	**451,256**	**493,086**	**551,380**	**609,641**
GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE					
New South Wales(*a*)	114,899	119,254	141,481	159,152	163,976
Victoria	78,190	82,251	88,977	102,444	117,228
Queensland	32,100	35,208	44,189	40,210	43,911
South Australia	16,826	19,324	20,988	24,745	27,843
Western Australia	14,585	17,828	19,301	20,529	22,812
Tasmania	5,493	5,949	6,664	7,854	9,153
Total	**262,094**	**279,814**	**321,599**	**354,933**	**384,924**

(*a*) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS, BY PRINCIPAL CLASS OF RISK, AUSTRALIA, 1961-62 TO 1965-66

($'000)

Class of risk	1961–62	1962–63	1963–64	1964–65	1965–66
GROSS PREMIUMS, LESS RETURNS, REBATES AND BONUSES					
Fire	71,073	73,846	78,881	81,664	85,167
Householders' comprehensive	23,848	26,761	29,827	33,357	37,233
Employers' liability and workers' compensation(*a*)	87,258	88,014	95,783	114,506	138,412
Motor vehicle—					
Compulsory third party	51,800	61,398	68,388	74,974	81,324
Other	112,961	120,436	134,241	151,478	166,106
Marine	17,157	19,153	21,203	23,373	24,317
Personal accident	14,340	15,900	15,736	18,071	19,576
All other	39,993	45,747	49,027	53,958	57,509
Total	**418,431**	**451,256**	**493,086**	**551,380**	**609,641**
GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE					
Fire	24,932	26,405	32,973	30,563	32,650
Householders' comprehensive	6,271	6,724	7,302	8,332	10,286
Employers' liability and workers' compensation(*a*)	67,850	70,009	76,006	83,203	90,544
Motor vehicle—					
Compulsory third party	50,436	54,649	64,879	71,013	77,153
Other	75,521	82,630	97,752	113,356	118,292
Marine	8,198	8,904	10,509	12,604	14,775
Personal accident	7,124	7,475	7,225	8,158	9,445
All other	21,762	23,016	24,954	27,706	31,781
Total	**262,094**	**279,814**	**321,599**	**354,933**	**384,924**

(*a*) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

The Export Payments Insurance Corporation

The Export Payments Insurance Corporation was established under the *Export Payments Insurance Corporation Act* 1956 to provide exporters with insurance against risks associated with overseas trade which are not usually acceptable to commercial insurers, and to give certain guarantees in connection with that trade. The Corporation commenced business in 1957. Where the Corporation is not in a position to accept business on its commercial account it may be authorised under its statute to provide insurance facilities on the Commonwealth Government's account in the national interest. *See also* the chapter Overseas Transactions, page 376.

EXPORT PAYMENTS INSURANCE CORPORATION: BUSINESS, 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66
Commercial business—					
Number of policy holders	298	373	436	509	558
	$'000	$'000	$'000	$'000	$'000
Face value of policies current	65,904	88,956	127,492	160,424	180,700
Maximum contingent liability	35,122	46,192	66,672	83,164	93,801
Premium income	186	238	330	387	463
Operating costs	158	166	200	233	259
Claims paid (gross)	44	76	90	321	325
Recoveries	10	26	24	72	83
Underwriting reserve	410	560	152	785	955
National interest business—					
Number of policy holders	..	..	1	1	1
	$'000	$'000	$'000	$'000	$'000
Face value of policies current	..	..	2,594	2,594	2,594
Maximum contingent liability	..	..	2,142	2,142	2,142
Trade Promotion—Overseas stocks (warehousing)—					
Number of policy holders	..	..	..	..	3
	$'000	$'000	$'000	$'000	$'000
Face value of policies current	..	..	..	..	66
Maximum contingent liability	..	..	..	..	63
Unconditional guarantees to banks—					
Number of guarantees	..	..	..	..	1
	$'000	$'000	$'000	$'000	$'000
Face values of guarantees	..	..	..	..	269
Maximum contingent liability	..	..	..	..	269

INSTALMENT CREDIT FOR RETAIL SALES

Information relating to instalment credit for retail sales in Australia is given in the following tables. Information in more detail may be found in the annual bulletin *Insurance and Other Private Finance* and in the monthly and quarterly statements relating to instalment credit for retail sales issued by this Bureau (*see* beginning of chapter).

The statistics cover operations of all types of instalment credit schemes which relate primarily to the financing of retail sales of goods, whether the credit is advanced by a retail business or by a non-retail finance business. In general, the term 'instalment credit' is defined as relating to schemes in which repayment is made by regular pre-determined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to the financing of retail sales of goods. In these statistics the term 'retail sales' relates not only to retail sales by retail establishments coming within the scope of the Censuses of Retail Establishments conducted periodically by this Bureau, but includes also other sales of goods to final purchasers (e.g. plant and machinery).

Figures for amounts financed *exclude* interest, hiring charges, insurance, etc. Figures for balances outstanding and collections *include* interest, hiring charges, insurance, etc. Details are not available of these charges or of other items (e.g. rebates allowed for early payments, late payment charges, bad debts written off) which affect the reconciliation of the three main instalment credit series—amount financed, collections, and balances outstanding.

Statistics of amounts financed are classified by type of goods, defined as follows: *motor vehicles* (new and used separately)—motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc.; *plant and machinery*—farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc.; *household and personal goods*—furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, television, musical instruments, bicycles, motor mowers, clothing, etc.

Further explanatory detail on these series may be found in the bulletin and statements referred to on page 734.

Total instalment credit, by type of business

The following table gives separate particulars of the instalment credit transactions of retail businesses and non-retail finance businesses for the years 1961–62 to 1965–66.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF BUSINESS: AMOUNT FINANCED, BY COMMODITY GROUP, COLLECTIONS, AND BALANCES OUTSTANDING, AUSTRALIA, 1961-62 TO 1965-66

($ million)

Year	Amount financed during year					Collections during year	Balances outstanding at end of year
	Motor vehicles, etc.		Plant and machinery	Household and personal goods	Total		
	New	Used					
Retail businesses—							
1961–62	9.4	11.0	2.7	267.5	290.6	322.2	413.1
1962–63	9.5	11.5	3.6	281.7	306.4	355.3	425.3
1963–64	10.9	11.7	3.1	297.9	323.7	380.0	416.7
1964–65	11.1	10.9	2.6	287.0	311.6	379.7	395.6
1965–66	10.2	9.5	3.0	259.7	282.3	359.2	359.6
Non-retail finance businesses—							
1961–62	176.6	169.7	41.6	84.9	472.8	648.3	756.3
1962–63	214.2	229.1	47.1	85.9	576.3	654.9	832.5
1963–64	252.7	254.3	52.9	84.0	644.0	703.1	939.2
1964–65	288.7	272.1	65.4	85.7	711.8	765.7	1,054.1
1965–66	271.5	252.5	69.5	77.8	671.2	818.0	1,070.3
All businesses—							
1961–62	186.0	180.7	44.3	352.4	763.4	970.5	1,169.4
1962–63	223.6	240.7	50.7	367.6	882.6	1,010.2	1,257.7
1963–64	263.6	266.0	56.1	382.0	967.6	1,083.1	1,355.9
1964–65	299.8	283.0	68.0	372.7	1,023.5	1,145.4	1,449.7
1965–66	281.6	262.0	72.5	337.4	953.5	1,177.2	1,429.9

Total instalment credit, by type of credit

In the following table particulars are given for retail businesses and non-retail finance businesses combined, classified by type of instalment credit, for the years 1961–62 to 1965–66.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF CREDIT: AMOUNT FINANCED, BY COMMODITY GROUP, AND BALANCES OUTSTANDING AUSTRALIA, 1961-62 TO 1965-66

($ million)

Year	Amount financed during year				Balances outstanding at end of year
	Motor vehicles, etc.	Plant and machinery	Household and personal goods	Total	
Hire purchase—					
1961–62 . . .	346.1	43.4	173.6	563.1	952.7
1962–63 . . .	429.2	50.0	177.0	656.2	1,004.4
1963–64 . . .	461.0	55.0	173.0	689.0	1,061.6
1964–65 . . .	459.6	64.6	163.5	687.7	1,064.8
1965–66 . . .	411.1	67.2	134.6	612.9	1,019.0
Other instalment credit—					
1961–62 . . .	20.5	0.9	178.8	200.3	216.7
1962–63 . . .	35.1	0.7	190.6	226.4	253.4
1963–64 . . .	68.6	1.1	208.9	278.6	294.3
1964–65 . . .	123.2	3.4	209.2	335.8	384.9
1965–66 . . .	132.5	5.3	202.9	340.6	410.9
Total instalment credit—					
1961–62 . . .	366.6	44.3	352.4	763.4	1,169.4
1962–63 . . .	464.3	50.7	367.6	882.6	1,257.7
1963–64 . . .	529.6	56.1	382.0	967.6	1,355.9
1964–65 . . .	582.8	68.0	372.7	1,023.5	1,449.7
1965–66 . . .	543.6	72.5	337.4	953.5	1,429.9

Amount financed, by type of credit

Classifications of amount financed on new retail agreements, by type of instalment credit and by State, are given in the following tables.

INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED BY TYPE OF CREDIT, STATES, 1961-62 TO 1965-66

($ million)

Year	N.S.W. (*a*)	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	Aust.
Hire purchase—							
1961–62 . .	224.0	148.5	79.1	43.6	49.2	18.6	563.1
1962–63 . .	260.0	164.3	98.8	52.1	58.6	22.4	656.2
1963–64 . .	282.5	151.3	115.1	56.0	60.8	23.3	689.0
1964–65 . .	298.7	136.6	110.7	57.4	60.2	24.2	687.7
1965–66 . .	264.7	113.3	94.9	48.1	67.1	24.9	612.9
Other instalment credit—							
1961–62 . .	91.1	46.0	21.5	21.4	14.9	5.4	200.3
1962–63 . .	99.6	58.3	25.6	23.1	14.0	5.8	226.4
1963–64 . .	117.5	82.6	33.5	25.8	14.1	5.1	278.6
1964–65 . .	109.1	118.7	51.5	36.2	15.0	5.2	335.8
1965–66 . .	109.3	121.5	54.2	35.2	15.7	4.8	340.6
Total instalment credit—							
1961–62 . .	315.2	194.5	100.6	65.0	64.1	24.0	763.4
1962–63 . .	359.6	222.6	124.3	75.2	72.7	28.2	882.6
1963–64 . .	400.0	233.9	148.6	81.8	74.9	28.4	967.6
1964–65 . .	407.8	255.3	162.2	93.6	75.2	29.3	1,023.5
1965–66 . .	374.0	234.8	149.1	83.3	82.8	29.6	953.5

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory

Amount financed, by type of credit and commodity group

The details shown for 1965–66 in the preceding table are classified by commodity groups below.

INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED BY TYPE OF CREDIT AND COMMODITY GROUP, STATES, 1965–66
($ million)

Commodity group	N.S.W. (*a*)	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	Aust.
Hire purchase—							
Motor vehicles, tractors, etc.	197.5	60.0	56.5	32.9	46.2	18.1	411.1
Plant and machinery	23.9	14.7	10.8	4.6	10.5	2.6	67.2
Household and personal goods	43.2	38.6	27.6	10.6	10.4	4.2	134.6
Total hire purchase	*264.7*	*113.3*	*94.9*	*48.1*	*67.1*	*24.9*	*612.9*
Other instalment credit—							
Motor vehicles, tractors, etc.	3.9	75.5	30.3	16.7	5.6	0.4	132.5
Plant and machinery	1.4	1.4	1.4	0.3	0.8	0.1	5.3
Household and personal goods	104.0	44.6	22.6	18.2	9.3	4.2	202.9
Total other instalment credit	*109.3*	*121.5*	*54.2*	*35.2*	*15.7*	*4.8*	*340.6*
Total instalment credit—							
Motor vehicles, tractors, etc.	201.5	135.5	86.7	49.6	51.8	18.5	543.6
Plant and machinery	25.3	16.1	12.2	4.9	11.3	2.7	72.5
Household and personal goods	147.2	83.2	50.1	28.8	19.7	8.4	337.4
Total instalment credit	374.0	234.8	149.1	83.3	82.8	29.6	953.5

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

New hire purchase agreements—averages

The following are some additional particulars relating to new hire purchase agreements made during 1965–66.

NEW HIRE PURCHASE AGREEMENTS: AVERAGE VALUE AND AMOUNT AND PROPORTION FINANCED, BY COMMODITY GROUP, AUSTRALIA, 1965–66

Commodity group	Average value of goods purchased per agreement	Average amount financed per agreement	Average proportion financed
	$	$	Per cent
Motor vehicles, tractors, etc.	1,613	1,058	66
Plant and machinery	2,278	1,493	66
Household and personal goods	176	145	82
All groups	**656**	**450**	**69**

Balances outstanding, by type of credit

Details of the balances outstanding on retail agreements at 30 June 1962 to 1966 are given in the following table.

INSTALMENT CREDIT FOR RETAIL SALES: BALANCES OUTSTANDING BY TYPE OF CREDIT, STATES, 30 JUNE 1962 TO 1966

($ million)

30 June—	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
Hire purchase—							
1962	387.7	245.8	128.9	85.9	76.9	27.5	952.7
1963	410.2	248.8	142.1	84.6	86.8	31.8	1,004.4
1964	440.9	240.6	166.7	87.4	91.5	34.4	1,061.6
1965	468.8	211.6	164.2	90.7	92.9	36.6	1,064.8
1966	451.9	188.0	159.8	83.9	97.3	38.1	1,019.0
Other instalment credit—							
1962	89.0	56.9	21.5	24.9	16.3	8.2	216.7
1963	100.5	69.5	26.3	30.8	17.6	8.7	253.4
1964	106.2	94.0	34.6	34.4	17.3	7.9	294.3
1965	103.6	143.3	66.6	47.0	16.8	7.7	384.9
1966	107.2	156.7	72.5	49.4	17.9	7.2	410.9
Total instalment credit—							
1962	476.7	302.7	150.4	110.8	93.2	35.7	1,169.4
1963	510.7	318.3	168.5	115.3	104.4	40.5	1,257.7
1964	547.1	334.6	201.3	121.7	108.9	42.3	1,355.9
1965	572.3	354.9	230.8	137.7	109.7	44.3	1,449.7
1966	559.1	344.7	232.3	133.3	115.3	45.3	1,429.9

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.

NEW CAPITAL RAISINGS BY COMPANIES IN AUSTRALIA

Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Insurance and Other Private Finance* and in quarterly bulletins dealing with capital raisings (*see* beginning of chapter).

The statistics (the collection of which commenced in July 1954) relate to capital raised by companies through issues of shares, and in the case of companies listed on stock exchanges, through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft or bank loans, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included. Totally unsecured loans are included in the case of listed companies, but are excluded in the case of unlisted companies.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or the Australian territories and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia, including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included in the statistics of share issues. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits, include, in addition to capital raised by companies incorporated in Australia (including subsidiaries of overseas companies), capital raised in this way from Australian sources by overseas public companies through their Australian offices.

The following are explanatory notes relating to some of the items shown in the tables.

New money. This is the net amount of cash transferred from the investing public to the companies. For this purpose the 'investing public' includes banks and life insurance companies (except when subscribing to issues by associated companies) and government and private superannuation funds, but excludes other government agencies. Subscriptions by associated companies, whether local or overseas, are excluded. In the tables which follow the amount of new money is obtained by deducting from the total cash raised the 'amount not involving a net transfer of funds from the investing public'.

Amounts not involving new money. These amounts include cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the 'investing public'. Also included are amounts which, although subscribed by the 'investing public' (i.e. subscribers other than 'associated companies'), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc. or are used to purchase from individuals existing shares, debentures, etc. in other companies, including existing shares, etc. in associated and subsidiary companies. The funds used in this way are thus returned to another section of the 'investing public' and do not represent a *net* transfer of cash from the 'investing public' to the companies. (Besides these purchases of existing shares, etc. from individuals, purchases of existing shares, etc. from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.)

Companies listed on stock exchanges

Details of new capital raised through issues of shares, debentures, or registered notes, or through accepting deposits are given in the following table for each of the years 1961–62 to 1965–66.

LISTED AUSTRALIAN COMPANIES(*a*): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES, DEBENTURES, OR REGISTERED NOTES, ETC.(*b*), OR ACCEPTING DEPOSITS(*c*), 1961–62 TO 1965–66

($ million)

Year	Share capital						Debentures, registered notes and deposits		
	Value of issues commenced	Non-cash issues commenced (*d*)	Cash issues commenced	Cash raised during period (*e*)	Amounts not involving new money	New money	Total amount raised (*f*)	Amounts not involving new money (*f*)	New money
1961–62 . .	383.0	145.8	237.2	189.8	37.4	152.4	762.4	563.2	199.2
1962–63 . .	276.5	144.2	132.2	150.2	45.5	104.7	839.2	609.3	229.9
1963–64 . .	260.8	119.3	141.4	169.2	42.8	126.4	907.7	745.5	162.2
1964–65 . .	394.4	136.6	257.9	209.2	62.3	146.9	1,075.1	905.9	169.0
1965–66 . .	292.1	85.6	206.3	232.6	61.5	171.3	981.0	834.7	146.4

(*a*) Includes companies incorporated in the Australian Territories. (*b*) Includes convertible notes. (*c*) Deposits accepted by banks, life insurance companies, pastoral companies and building societies, and loans to authorised dealers in the short-term money market are not included. (*d*) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (*e*) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years. (*f*) Includes conversions, renewals, etc.

Companies not listed on stock exchanges

Details of new capital raised by unlisted companies through issues of shares and loans secured by charges over the companies' entire assets are given in the following table for each of the years 1961–62 to 1965–66.

UNLISTED COMPANIES(*a*): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES' ENTIRE ASSETS, 1961–62 TO 1965–66

($ million)

Year	Share capital						Loans secured by charges over the companies' entire assets		
	Value of issues commenced	Non-cash issues commenced (*b*)	Cash issues commenced	Cash raised during period (*c*)	Amounts not involving new money	New money	Total amount raised (*d*)	Amounts not involving new money (*d*)	New money
1961–62 . .	503.6	268.6	235.0	216.6	161.8	54.8	48.0	34.2	13.8
1962–63 . .	412.6	218.7	193.9	204.8	159.1	45.7	58.8	45.4	13.3
1963–64 . .	432.3	222.5	209.9	211.6	163.2	48.4	68.7	46.1	22.6
1964–65 . .	563.5	303.1	260.5	233.9	182.2	51.7	65.3	40.1	25.2
1965–66 . .	455.3	260.1	195.4	216.3	165.5	50.8	63.8	40.7	23.1

(*a*) Excludes companies incorporated in the Northern Territory and Australian External Territories for 1962–63 and previous years, but includes Northern Territory incorporations for 1963–64 and subsequent years. (*b*) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (*c*) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years. (*d*) Includes conversions, renewals, etc.

Listed and unlisted companies—new money raised, classified by industry group

A summary of new money raised by listed and unlisted companies during each of the years 1961–62 to 1965–66, as shown in the preceding tables, is given below, together with a classification by industry groups of the amounts raised.

LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED, BY INDUSTRY GROUP, 1961–62 TO 1965–66

($ million)

Year	Companies listed on stock exchanges			Companies not listed on stock exchanges			Grand total
	Share capital (*a*)	Debentures, registered notes and deposits (*b*)	Total	Share capital (*a*)	Secured loans (*c*)	Total	
Manufacturing—							
1961–62 . . .	84.2	58.8	143.0	11.0	3.0	14.0	157.0
1962–63 . . .	40.4	28.0	68.4	10.5	3.5	14.0	82.4
1963–64 . . .	31.9	12.9	44.8	10.0	18.3	28.3	73.1
1964–65 . . .	78.2	27.8	106.0	12.4	19.8	32.2	138.2
1965–66 . . .	94.5	81.9	176.4	13.6	12.8	26.4	202.8
Finance and property(*b*)—							
1961–62 . . .	12.0	90.2	102.2	16.2	5.4	21.6	123.8
1962–63 . . .	11.9	153.0	164.9	12.8	3.8	16.6	181.5
1963–64 . . .	21.8	89.9	111.7	15.5	2.7	18.2	129.9
1964–65 . . .	12.8	119.8	132.6	11.4	1.8	13.2	145.8
1965–66 . . .	25.3	62.0	87.3	9.4	4.6	14.0	101.3
Commerce—							
1961–62 . . .	27.4	27.2	54.6	10.2	1.4	11.6	66.2
1962–63 . . .	23.0	34.2	57.2	8.2	2.3	10.5	67.7
1963–64 . . .	44.3	49.0	93.3	7.8	0.6	8.4	101.7
1964–65 . . .	23.0	5.0	28.0	9.6	0.6	10.2	38.2
1965–66 . . .	25.0	(*d*)−8.4	16.6	10.1	1.6	11.7	28.3
Other industries—							
1961–62 . . .	28.8	23.0	51.8	14.4	4.0	18.4	70.2
1962–63 . . .	29.5	14.9	44.4	11.4	3.9	15.3	59.7
1963–64 . . .	28.3	10.1	38.4	11.6	1.3	12.9	51.3
1964–65 . . .	32.8	16.5	49.3	15.1	3.1	18.2	67.5
1965–66 . . .	26.5	11.0	37.5	14.5	4.1	18.6	56.1
All industries—				(*e*)		(*e*)	(*e*)
1961–62 . . .	152.4	199.2	351.6	54.8	13.8	68.6	420.2
1962–63 . . .	104.7	229.9	334.6	45.7	13.3	59.0	393.6
1963–64 . . .	126.4	162.2	288.6	48.4	22.6	71.0	359.6
1964–65 . . .	146.9	169.0	315.9	51.7	25.2	76.9	392.8
1965–66 . . .	171.3	146.4	317.7	50.8	23.1	73.9	391.6

(*a*) Includes preference shares. (*b*) Excludes deposits accepted by banks, insurance companies, pastoral companies and building societies, and loans to authorised dealers in the short-term money market. (*c*) Includes only loans which are secured by charges over the companies' entire assets. (*d*) Excess of repayments over receipts of new money. (*e*) Small share issues of less than $2,000 for which returns have not been collected have not been included in the industrial classification but are included in All industries.

UNIT TRUSTS, LAND TRUSTS AND MUTUAL FUNDS

Statistics relating to operations in Australia of unit trusts, land trusts and mutual funds have been collected quarterly since March 1961 and are shown in the following tables. The figures do not include details of superannuation funds conducted by unit trusts management companies.

Transactions of trusts and funds

Particulars of cash transactions in trust units and fund shares and of purchases and sales of investments by trusts and funds are given in the following table.

TRUSTS AND FUNDS: TRANSACTIONS, YEARS 1961–62 TO 1965–66 AND QUARTERS SEPTEMBER 1965 TO DECEMBER 1966

($ million)

Period	Cash transactions—trust units and fund shares		Purchases and sales of investments(*a*)	
	Total amount received (*b*)	Total amount paid (*c*)	Purchases (*d*)	Sales (*e*)
Year—				
1961–62	34.9	13.9	23.3	7.0
1962–63	31.7	14.0	27.4	9.7
1963–64	44.9	20.4	35.2	10.6
1964–65	36.0	22.6	31.3	18.8
1965–66	25.2	19.7	23.9	20.0
Quarter—				
September 1965	6.1	3.1	7.0	4.8
December 1965	6.8	5.1	5.1	4.3
March 1966	4.8	5.0	5.7	5.5
June 1966	7.6	6.4	6.1	5.3
September 1966	5.6	5.4	5.6	4.0
December 1966	5.5	5.4	5.5	4.8

(*a*) Commonwealth Government, local and semi-governmental authority securities, shares, debentures, unsecured notes, loans, deposits on term or notice of three months or longer, land and buildings, etc. (*b*) For trust units and fund shares issued. Includes re-issues and new issues. Includes fees and expenses. (*c*) For trust units and fund shares repurchased. Includes those units and fund shares intended for re-issue. (*d*) Payments for assets acquired during period. Includes brokerage and stamp duty. (*e*) Receipts for assets sold or redeemed during period. Excludes brokerage and stamp duty.

Analysis of purchases and sales of investments

Details of purchases and sales of investments by trusts and funds for the years 1961–62 to 1965–66 are given in the following table.

TRUSTS AND FUNDS: ANALYSIS OF PURCHASES AND SALES OF INVESTMENTS, 1961-62 TO 1965-66

($ million)

Year	Shares (incl. preference shares)	Debentures, unsecured notes, deposits (*a*)	Cwlth Govt, local and semi-govt authority securities	Other (*b*)	Total
Purchases—					
1961–62	18.3	2.8	0.1	2.2	23.3
1962–63	19.1	5.2	0.1	3.0	27.4
1963–64	25.0	6.8	0.1	3.2	35.2
1964–65	19.3	6.1	0.1	6.0	31.3
1965–66	12.7	3.8	..	7.4	23.9
Sales—					
1961–62	5.4	0.4	0.4	0.8	7.0
1962–63	6.4	0.7	0.7	1.9	9.7
1963–64	7.7	1.9	0.1	0.9	10.6
1964–65	13.7	2.7	0.1	2.3	18.8
1965–66	14.1	2.7	0.1	3.1	20.0

(*a*) Excludes cash on hand and at bank, loans to authorised dealers in the short-term money market, and other deposits under three months term or notice. (*b*) Includes land and buildings, mortgages on land and buildings, and other investments.

Market value of trusts and funds, and cash and short-term deposits of trusts and funds

The total market value of trusts and funds and the cash and short-term deposits of trusts and funds are shown in the following table.

TRUSTS AND FUNDS: TOTAL MARKET VALUE AND CASH AND SHORT-TERM DEPOSITS, JUNE 1961 TO DECEMBER 1966

($ million)

At—	Total market value of trusts and funds(*a*)	Cash and short-term deposits		
		Cash(*b*)	Short-term deposits(*c*)	Total
30 June 1961 . . .	168.0	1.2	6.4	7.6
,, ,, 1962 . . .	183.6	1.1	7.2	8.3
,, ,, 1963 . . .	207.7	2.1	5.7	7.8
,, ,, 1964 . . .	249.8	1.6	6.4	8.0
,, ,, 1965 . . .	222.2	2.0	5.6	7.6
30 September 1965 . .	225.1	2.2	5.8	8.0
31 December 1965 . .	229.3	2.4	5.7	8.0
31 March 1966 . .	223.3	3.0	5.2	8.3
30 June 1966 . .	225.2	1.9	5.5	7.4
30 September 1966 . .	219.0	1.7	4.3	6.0
31 December 1966 . .	226.5	1.6	3.8	5.4

(*a*) Includes value of land trusts at valuation. (*b*) Includes cash on hand and at bank. (*c*) Includes loans to authorised dealers in the short-term money market and other deposits under three months term or notice.

PASTORAL FINANCE COMPANIES

Rural advances

The following table is derived from returns supplied to the Reserve Bank by major pastoral finance companies and shows the total rural advances outstanding at the end of June 1961 to 1965 and of subsequent quarters to December 1966.

PASTORAL FINANCE COMPANIES: RURAL ADVANCES(*a*), STATES JUNE 1961 TO DECEMBER 1966

(*Source:* Reserve Bank of Australia)

($ million)

End of—	New South Wales	Victoria	Queensland	South Australia	Western Australia and Tasmania	Total
June 1961 . .	59.7	39.9	46.8	34.8	31.8	212.9
,, 1962 . .	58.8	32.9	48.6	34.8	33.0	208.0
,, 1963 . .	61.4	35.6	49.9	33.1	33.8	213.7
,, 1964 . .	64.1	39.0	51.9	36.3	37.1	228.3
,, 1965 . .	66.6	43.9	58.5	42.8	47.1	258.9
September 1965 .	73.0	48.7	60.9	45.4	46.6	274.6
December 1965 .	71.4	50.3	58.8	46.6	44.3	271.5
March 1966 . .	68.9	46.3	60.3	42.8	44.4	262.6
June 1966 . .	62.4	40.9	55.6	44.3	46.6	249.9
September 1966 .	63.6	46.4	55.0	43.3	49.9	258.2
December 1966 .	67.3	51.8	56.6	46.3	51.3	273.2

(*a*) Compiled from returns supplied by major pastoral finance companies. Advances are classified according to the location of the branch holding the advance, which in some cases may differ from the State of residence of the borrower. The statistics refer to the total advances outstanding at the end of the month shown.

Liabilities and assets

The following table gives details of the liabilities and assets of pastoral finance companies at the end of June 1962 and subsequent quarters to December 1966.

PASTORAL FINANCE COMPANIES: LIABILITIES AND ASSETS(*a*) JUNE 1962 TO DECEMBER 1965

(*Source:* Reserve Bank of Australia)

($ million)

LIABILITIES

End of—	Balances due to banks	Clients' credit balances	Debentures, notes and deposits		Other outside liabilities	Share-holders' funds	Overseas liabilities	Total liabilities/ assets
			Maturing within twelve months	Other				
June 1962	50.9	38.8	26.9	13.0	77.6	107.1	108.7	423.0
„ 1963	48.1	46.3	18.9	15.7	88.5	112.1	104.9	434.6
„ 1964	49.6	51.6	18.9	20.0	98.1	130.3	107.2	475.8
„ 1965	74.5	42.9	19.9	22.5	86.6	138.0	114.1	498.6
September 1965	72.9	40.5	21.9	24.7	106.4	139.7	124.7	530.9
December 1965	75.1	42.2	29.9	25.8	99.3	143.0	126.8	542.0
March 1966	67.6	42.4	31.7	25.3	115.1	145.1	126.1	553.2
June 1966	57.3	39.1	27.3	24.1	95.6	145.7	128.4	517.5
September 1966	67.5	42.7	33.4	26.3	101.6	145.7	129.4	546.6
December 1966	73.4	43.0	42.4	26.5	95.7	151.0	131.4	563.4

ASSETS

End of—	Cash and deposits with banks	Loans to authorised money market dealers	Other short-term assets (*b*)	Cwlth Govt securities	Advances and sundry debtors		Stocks	Fixed assets	Other assets
					Rural	Other			
June 1962	5.3	0.1	8.6	13.9	208.0	20.5	28.1	116.0	22.6
„ 1963	5.6	2.1	10.2	14.6	213.7	22.7	29.2	117.3	19.1
„ 1964	10.7	1.9	8.8	20.0	228.3	23.6	32.1	124.5	25.8
„ 1965	5.4	1.1	1.0	14.0	258.9	24.3	35.2	133.5	25.3
September 1965	9.5	1.4	5.8	9.6	274.6	31.7	34.7	138.6	25.1
December 1965	8.7	2.2	8.6	19.7	271.5	31.5	34.1	140.9	24.8
March 1966	12.2	4.5	6.5	36.0	262.6	33.1	33.2	140.2	24.9
June 1966	6.3	0.9	4.5	29.0	249.9	28.0	34.9	140.2	23.8
September 1966	8.7	1.3	3.4	40.4	257.2	34.1	35.7	144.9	19.9
December 1966	8.8	0.6	3.0	45.0	273.2	31.4	36.3	145.4	19.7

(*a*) Compiled from returns supplied by major pastoral finance companies. (*b*) Excludes Commonwealth Government securities.

RURAL DEBT

Major sources of credit for rural purposes include banks, Commonwealth and State government financial agencies, pastoral finance companies, and life insurance companies. The following table shows the estimated rural debt to these lenders.

ESTIMATED RURAL DEBT TO SPECIFIED LENDERS
30 JUNE 1962 TO 1966

(*Source:* Reserve Bank of Australia)

($ million)

Lender	30 June—				
	1962	1963	1964	1965	1966
Major trading banks	479	495	514	584	649
Ex-service settlement	118	113	108	104	98
Other government, incl. State banks and State savings banks	159	169	191	216	249
Pastoral finance companies	208	214	228	258	250
Commonwealth Development Bank	34	45	55	72	92
Life insurance companies	51	52	56	66	75
Total	**1,049**	**1,088**	**1,152**	**1,300**	**1,413**

In addition, credit is supplied to the rural sector by finance companies, merchants, co-operative producer organisations, and by private lenders and investors, the most noteworthy of these last-mentioned sources involving family arrangements and property vendors. No data are currently available on the extent of the outstanding debt by the rural sector to these sources.

SHORT-TERM MONEY MARKET

For some years prior to 1959 leading stockbrokers had been actively engaged in the acceptance of short-term funds against the security of government securities, but their operations were limited by the absence of suitable short-term securities and their liquidity requirements. In February 1959 the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorised dealers in the short-term money market.

The form of organisation consists of nine companies whose functions are:

(i) to accept loans overnight, at call or for fixed periods, in minimum amounts of $50,000 and to invest these funds in Commonwealth Government securities with currencies not exceeding three years and, since March 1965, in commercial bills that had been accepted or endorsed by a trading bank; and

(ii) to engage as traders in the buying and selling of these specific classes of securities.

Dealers are required to have a minimum paid-up capital of $400,000 and a level of shareholders' funds sufficient to permit the lodgment of 'margins' with the Reserve Bank, in the form of Commonwealth Government securities, as general backing for their operations. These securities lodged as margins are required to be, on market values, equivalent to at least:

(*a*) one-half per cent of the dealer's holding of Treasury Notes;

(*b*) one per cent of the dealer's holding of Commonwealth Government securities and commercial bills maturing within one year;

(*c*) two per cent of the dealer's holding of Commonwealth Government securities maturing within one to two years; and

(*d*) four per cent of the dealer's holding of Commonwealth Government securities maturing within two to three years.

The total amount of loans a dealer may accept is determined by the Reserve Bank in relation to the level of the dealer's shareholders' funds. Under the lender of last resort arrangements the dealer may borrow from the Reserve Bank against the lodgment of securities.

Selected assets and liabilities of authorised dealers and rates of interest on loans accepted

In the following table details of selected assets and liabilities of authorised dealers and the interest rates on loans accepted by dealers are given for June 1961 to 1965 and for each month January to December 1966.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORISED DEALERS, JUNE 1961 TO DECEMBER 1966

(*Source*: Reserve Bank of Australia)

Month	Liabilities to clients			Holdings of Commonwealth Government securities (at face value)	Commercial bills	Interest rates on loans accepted during month				Weighted average interest rate on loans outstanding (*a*) per cent per annum
	All cheque-paying banks	Other clients	Total			At call		For fixed periods		
						Minimum per cent per annum	Maximum per cent per annum	Minimum per cent per annum	Maximum per cent per annum	
	Average of weekly figures—$ million									
June 1961	68.8	125.5	194.3	200.8	..	2.50	4.88	3.50	4.83	4.17
„ 1962	55.8	177.1	232.9	242.3	..	2.00	4.00	3.00	3.88	3.45
„ 1963	58.0	209.1	267.1	285.8	..	2.00	4.25	3.13	4.25	3.75
„ 1964	67.3	253.6	320.8	341.2	..	1.50	4.50	3.38	4.50	3.71
„ 1965	93.7	219.0	312.7	343.4	7.6	1.50	6.00	2.00	5.53	4.16
1966—										
Jan.	117.5	253.3	370.8	382.9	8.9	1.00	6.00	2.50	5.75	3.97
Feb.(*b*)	108.1	274.1	382.2	391.2	7.4	1.00	5.75	2.50	5.50	3.97
Mar.	72.9	293.9	366.8	377.0	14.2	2.25	6.25	4.25	6.00	4.49
April	92.4	266.8	359.2	369.0	17.8	1.00	6.50	1.00	6.00	4.26
May	92.5	267.8	360.3	371.0	19.6	1.00	6.00	1.00	5.75	4.14
June	74.8	275.4	350.2	373.3	25.2	3.00	6.10	4.25	5.80	4.73
July	105.4	282.9	388.3	396.5	23.0	1.00	6.25	4.00	6.00	4.48
Aug.	109.6	290.3	399.9	409.0	15.5	2.00	6.25	3.00	5.75	4.27
Sept.	96.1	316.9	413.0	421.3	13.6	2.00	6.00	4.00	5.75	4.44
Oct.	99.0	318.8	417.8	430.6	11.1	2.00	6.50	4.00	5.75	4.32
Nov.	92.1	338.1	430.2	441.6	12.6	1.00	6.25	3.50	5.80	4.14
Dec.(*b*)	87.4	346.6	434.0	448.2	12.6	2.75	6.25	3.75	6.00	4.53

(*a*) Average of weekly figures commencing October 1963; previously as at last Wednesday. (*b*) Excludes one Wednesday.

Authorised dealers' liabilities classified by type of client

The following table shows a classification of authorised dealers' liabilities by type of client as at 30 June 1965 and 1966 and December 1966.

SHORT-TERM MONEY MARKET: AUTHORISED DEALERS' LIABILITIES BY TYPE OF CLIENT(*a*), 30 JUNE 1965 AND 1966 AND DECEMBER 1966

(*Source*: Reserve Bank of Australia)

($ million)

Client	30 June 1965	30 June 1966	31 December 1966
All cheque-paying banks	93.9	91.1	128.4
Savings banks	32.1	35.6	26.4
Insurance offices	6.7	12.5	15.3
Superannuation, pension and provident funds	6.7	6.2	7.4
Hire purchase and other instalment credit companies	4.7	6.3	7.0
Companies, n.e.i.	56.5	95.1	152.2
Commonwealth and State Governments	33.6	30.4	35.2
Local government and semi-governmental authorities, n.e.i.	52.3	51.0	39.5
All other lenders(*b*)	15.7	18.4	35.1
Total	**302.2**	**346.5**	**446.5**

(*a*) Compiled from returns supplied by authorised dealers in the short-term money market. Liabilities to Reserve Bank as lender of last resort are excluded. (*b*) Includes marketing boards and trustee companies.

FRIENDLY SOCIETIES, REGISTERED BUILDING SOCIETIES AND CO-OPERATIVE SOCIETIES

Friendly societies

The total membership of friendly societies in Australia is about 430,000, but as certain benefits such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowance is made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports are published in most of the States dealing with the returns received.

Societies, members and revenue

The following table sets out the number of societies, members, etc., revenue and expenditure, and funds of registered societies for the year. More detailed information is available in the bulletin *Insurance and Other Private Finance*, and issue No. 4, 1965–66, contains particulars for the year 1964-65.

FRIENDLY SOCIETIES(*a*): SUMMARY, STATES, 1964-65

	New South Wales (*b*)	Victoria (*c*)	Queensland	South Australia	Western Australia	Tasmania (*c*)	Total
Registered societies	44	129	20	14	11	8	226
Branches	1,723	1,152	428	561	253	113	4,230
Benefit members at end of year	138,928	154,613	60,012	51,258	16,744	5,481	427,036
Average benefit members during year	143,024	154,809	58,592	51,102	16,932	n.a.	n.a.
Members who received sick pay	n.a.	27,468	7,316	8,501	2,703	1,090	n.a.
Total weeks sick pay granted	n.a.	436,304	122,537	165,708	56,364	22,396	n.a.
Average weeks per member sick	n.a.	15.9	16.7	19.5	20.9	20.5	n.a.
Deaths of benefit members	n.a.	2,632	1,188	1,045	350	255	n.a.
Proportion of deaths per 1,000 members (average)	n.a.	17.0	20.3	20.4	20.7	n.a.	n.a.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Revenue—							
Entrance fees, levies and members' contributions	11,138	8,196	2,196	4,687	1,552	37	27,805
Interest, dividends and rents	1,045	1,539	408	672	129	76	3,869
All other revenue	597	146	98	476	155	14	1,487
Total revenue	*12,779*	*9,882*	*2,702*	*5,835*	*1,835*	*127*	*33,161*
Expenditure—							
Sick pay	423	558	157	188	46	18	1,390
Medical attendance and medicine	8,198	5,129	1,569	3,638	1,304	4	19,842
Sums payable at death	572	228	173	125	46	46	1,190
Administration	2,087	1,673	551	837	137	29	5,314
All other expenditure	1,334	839	..	340	116	27	2,656
Total expenditure	*12,613*	*8,426*	*2,450*	*5,128*	*1,649*	*125*	*30,391*
Funds—*Total*	*23,192*	*29,294*	*8,736*	*13,696*	*4,036*	*1,374*	*80,328*

(*a*) Excludes juvenile branches, dispensaries, medical institutes, and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded. (*b*) Includes the Australian Capital Territory. (*c*) Year 1965.

Registered building societies

Summary

During 1963–64 and 1964–65 returns were received from 3,162 and 3,444 societies respectively, but the information was not exhaustive, as particulars regarding a number of organisations were not included. In the following table general information is given relating to the societies in each State for the year 1964–65 and to the combined States for 1963–64. More detailed information is available in the mimeographed bulletin *Registered Building Societies*. Issue No. 4 contains information for the year 1965–66.

REGISTERED BUILDING SOCIETIES: SUMMARY, STATES, 1964-65 AND TOTAL 1963-64

	1964–65(*a*)							1963–64 (*a*)
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total	Total
Societies making returns—								
Permanent	53	33	13	5	11	7	122	116
Starr-Bowkett	95	2	2	21	1	..	121	123
Terminating(*b*)	1,920	861	279	..	88	52	3,200	2,923
Total	*2,068*	*896*	*294*	*26*	*100*	*59*	*3,443*	*3,162*
Shareholders	184,999	58,615	15,370	26,188	34,366	12,933	332,471	311,420
Borrowers	n.a.	58,994	23,434	6,460	11,667	5,595	n.a.	n.a.
Working expenses $'000	5,476	3,798	2,089	721	1,298	152	13,534	11,681
Loans granted $'000	82,329	37,007	16,550	3,819	13,190	6,728	159,623	137,148

(*a*) At various balance dates within the financial year shown. (*b*) Co-operative housing and other terminating societies.

Liabilities and assets

Particulars of liabilities and assets in 1964–65 of the societies mentioned in the previous paragraph are shown below, with totals for 1963–64.

REGISTERED BUILDING SOCIETIES: LIABILITIES STATES, 1964-65 AND TOTAL, 1963-64
($'000)

State	1964–65(*a*)						1963–64(*a*)
	Investing members' funds	Borrowing members' funds	Deposits	Loans due to government	Bank overdrafts and other liabilities	Total liabilities	Total liabilities
New South Wales	118,826	98,720	5,728	73,071	216,164	512,510	458,410
Victoria	14,279	46,802	18,807	56,319	130,559	266,764	247,288
Queensland	27,645	5,207	1,154	17,000	21,465	72,470	62,780
South Australia	8,929	..	1,804	5,857	212	16,801	15,004
Western Australia	17,856	918	10,005	15,162	7,517	51,457	41,700
Tasmania	7,439	440	9,398	3,204	2,793	23,274	19,840
Total	**194,973**	**152,087**	**46,896**	**170,613**	**378,710**	**943,277**	**845,025**

(*a*) At various balance dates within the financial year shown.

REGISTERED BUILDING SOCIETIES: ASSETS STATES, 1964-65 AND TOTAL, 1963-64
($'000)

State	1964–65(*a*)			1963–64(*a*)
	Advances on mortgage (*b*)	Other assets	Total assets	Total assets
New South Wales	492,064	20,446	512,510	458,410
Victoria	261,090	5,674	266,764	247,288
Queensland	69,657	2,814	72,470	62,780
South Australia	15,790	1,011	16,801	15,004
Western Australia	48,606	2,851	51,457	41,700
Tasmania	21,853	1,421	23,274	19,840
Total	**909,060**	**34,217**	**943,277**	**845,025**

(*a*) *See* footnote (*a*) to table above. (*b*) Includes advances on mortgage of terminating societies which are on a gross basis. Net advances may be derived by subtracting borrowing members' funds. *See* table above.

Co-operative societies

Co-operative societies are divided into three classes: (i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act, 1923–1954. A summary of the business of all co-operative societies for the year 1964–65 for all States except Western Australia is given in the following tables. Separate particulars for each of the three types of co-operative societies are given in the annual bulletin *Insurance and Other Private Finance*, and issue No. 4, 1965–66 contains details for 1964–65. Particulars are not collected in Western Australia.

CO-OPERATIVE SOCIETIES, STATES, 1964-65

	N.S.W.	Vic.	Qld	S.A.	Tas.
SUMMARY					
Societies	350	154	251	73	13
Branches	n.a.	n.a.	126	n.a.	13
Members	293,383	104,857	144,747	115,828	4,269
	$'000	$'000	$'000	$'000	$'000
Gross turnover (sales)	290,183	110,798	152,762	45,422	3,269
Other income	2,023	4,766	8,384	3,707	453
Total income	*292,206*	*115,563*	*161,146*	*49,130*	*3,722*
Total purchases	230,556	90,116	117,787	36,692	2,794
Other expenditure	53,248	22,169	34,560	11,491	853
Total expenditure	*283,804*	*112,286*	*152,347*	*48,183*	*3,647*
Rebates and bonuses	6,292	765	3,185	2,340	21
Dividends on share capital	1,565	768	746	370	23
LIABILITIES ($'000)					
Paid-up capital	32,469	14,442	19,903	6,455	554
Loan capital	..	4,925	14,972	10,965	473
Bank overdrafts	24,536	7,678	18,623	3,424	317
Accumulated profits	21,924	2,229	6,019	1,650	157
Reserve funds		13,011	23,435	5,430	83
Sundry creditors	40,451	12,321	23,289	3,664	553
Other liabilities		3,002	3,721	6,051	52
Total	**119,379**	**57,609**	**109,963**	**37,639**	**2,190**
ASSETS ($'000)					
Land and buildings	53,014	22,060	20,222	8,874	511
Machinery, plant and other fixed assets		5,945	34,358	5,011	194
Stocks	33,813	8,181	10,219	9,944	387
Sundry debtors	24,387	14,563	35,578	4,476	877
Cash in hand and on deposit	8,165	2,012	2,755	742	33
Profit and loss account		1,090	127	31	4
Other assets		3,757	6,704	8,563	184
Total	**119,379**	**57,609**	**109,963**	**37,639**	**2,190**

LOTTERIES AND BETTING

Lotteries

State Governments operate lotteries in New South Wales, Queensland and Western Australia. Tattersall Lotteries are operated under government licence in Victoria and also sell tickets under government licence in Tasmania and New Zealand. The statistics of sales of tickets and prizes for Victoria include sales and allotments of prizes in Tasmania and New Zealand by Tattersall of Victoria. Tasmanian Lotteries were operated under government licence until 30 September 1961, when they surrendered their licence. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc. For information as to the origin, purpose and method of payment of proceeds or taxes to State revenues *see* Year Book No. 46, page 808 and earlier issues.

Details of ticket sales, prizes allotted, and taxes paid and other net contributions to State Government revenues, relating to lotteries drawn during each of the years 1961–62 to 1965–66, are given in the following table.

LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES

1961-62 TO 1965-66

($'000)

Year	New South Wales	Victoria	Queensland	Western Australia	Total
TICKET SALES					
1961–62	38,596	19,976	13,380	3,250	75,202
1962–63	44,430	20,684	13,600	3,900	82,614
1963–64	47,126	21,340	14,180	3,924	86,570
1964–65	48,830	21,675	14,460	3,725	88,690
1965–66	48,095	20,396	14,360	4,025	86,876
PRIZES ALLOTTED					
1961–62	24,698	11,864	8,524	1,840	46,926
1962–63	28,434	12,410	8,666	2,236	51,746
1963–64	30,252	12,804	9,040	2,258	54,354
1964–65	31,280	13,005	9,218	2,150	55,653
1965–66	30,815	12,238	9,163	2,339	54,555
TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES(*a*)					
1961–62	12,614	6,350	3,626	968	23,558
1962–63	14,734	6,404	3,680	1,146	25,964
1963–64	15,550	6,608	3,818	1,138	27,114
1964–65	15,079	6,719	3,854	1,151	26,803
1965–66	11,217	6,294	3,588	1,146	22,245

(*a*) Includes grants to Tasmanian and New Zealand governments by Tattersall Lotteries in Victoria.

Betting

Estimates of totalizator investments and investments with licensed bookmakers for the years 1961–62 to 1965–66 are given in the following table.

TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS: STATES AND AUSTRALIAN CAPITAL TERRITORY 1961-62 TO 1965-66

($'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australian Capital Territory (*a*)	Total
TOTALIZATOR INVESTMENTS								
1961–62 . .	27,760	54,258	5,702	5,012	18,592	1,422	n.a.	112,746
1962–63 . .	28,144	80,258	14,042	4,582	27,054	1,282	n.a.	155,362
1963–64 . .	28,600	109,244	24,584	4,748	32,070	1,260	n.a.	200,506
1964–65 . .	42,155	142,381	33,707	4,899	38,951	1,274	1,152	264.519
1965–66 . .	94,317	163,006	39,978	4,702	42,568	1,149	1,974	347,695
INVESTMENTS WITH LICENSED BOOKMAKERS(*b*)								
1961–62 . .	227,086	151,648	n.a.	56,884	28,334	25,950	n.a.	n.a.
1962–63 . .	237,338	151,084	106,338	56,012	22,668	26,604	n.a.	600,044
1963–64 . .	238,938	154,446	107,970	57,442	20,988	28,440	n.a.	608,224
1964–65 . .	279,389	159,723	116,797	61,045	20,434	32,612	n.a.	670,000
1965–66 . .	267,987	160,453	118,560	55,022	20,691	32,137	n.a.	654,850

(*a*) Off-course investments only. Totalisator Agency Board commenced operating from 1 September 1964.
(*b*) Estimated from taxes on betting with licensed bookmakers.

PENSION AND SUPERANNUATION SCHEMES

Government, local government and semi-governmental pension and superannuation schemes

The Commonwealth and all State Governments have established pension and superannuation schemes for their employees. These schemes are operated through funds to which both the Governments and their employees make contributions. Employees of local government and semi-governmental authorities are covered either by the Commonwealth and State Government schemes or by a separate scheme of the authority which is operated either through a separately constituted fund or through a life insurance office.

Schemes operated through separately constituted funds

GOVERNMENT, LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH SEPARATELY CONSTITUTED FUNDS, 1964–65

	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Income—	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Contributions—								
Employees	35,883	16,601	12,203	3,310	3,144	2,436	1,418	74,996
Employing authorities	27,227	37,195	16,402	3,603	3,438	2,816	1,474	92,155
Interest, dividends and rent	16,371	17,025	11,002	2,140	2,345	1,278	958	51,119
Other income	118	565	445	12	17	100	54	1,312
Total income	*79,600*	*71,387*	*40,051*	*9,065*	*8,944*	*6,631*	*3,904*	*219,582*
Expenditure—								
Pensions	30,215	27,779	16,548	2,212	4,430	3,133	1,611	85,927
Lump sum payments—								
On retirement	2,220	430	2,526	195	224	432	81	22,068
On resignation(*a*)	4,504	6,826	3,387	491	453		299	
Gratuities	1,915	550	45	..	..	..	..	2,510
Other expenditure	1	1,362	3,477	26	232	34	13	5,145
Total expenditure	*38,856*	*36,946*	*25,984*	*2,924*	*5,337*	*3,599*	*2,004*	*115,650*
Assets at end of year—								
Cash—								
Deposits with Treasury	127	256	658	27,549	635	300	..	29,525
Other deposits and cash	112	2,593	335	161	834	227	212	4,474
Commonwealth Govt securities	83,507	4,206	15,501	..	10,789	148	4,151	118,303
Local and semi-govt securities	215,617	226,390	155,037	19,729	16,247	24,922	9,163	667,105
Mortgages—								
Housing	..	..	276	..	19,727	..	4,710	24,712
Other	26,720	7,774	327	..	..	116	102	35,040
Loans to building societies	293	16,464	1,684	563	..	114	20	19,137
Company shares, debentures and notes	299	72,735	4,711	..	9	49	35	77,837
Other assets	6,106	6,411	40,901	18	456	701	286	54,880
Total assets	332,781	336,830	219,429	48,019	48,696	26,579	18,680	1,031,013
Less Sundry creditors, etc.	1,198	11,080	535	109	21	69	206	13,218
Accumulated funds	*331,583*	*325,750*	*218,894*	*47,910*	*48,675*	*26,509*	*18,474*	*1,017,795*
Contributors at end of year—	No.	No.	No.	No.	No.	No.	No.	No.
Males	179,443	133,204	86,014	17,750	19,907	16,096	8,511	472,055
Females				5,964	2,474		2,692	
Pensions at end of year—								
Ex-employees—								
Males	15,226	23,751	10,452	1,572	3,167	2,830	1,087	62,734
Females	1,238		1,608	511	660	358	274	
Widows	8,878	3,860	7,816	560	2,625	2,040	817	26,596
Children	2,360	523	1,091	154	241	207	131	4,707

(*a*) Includes refunds of contributions to continuing members and to members withdrawing from the scheme.

Schemes operated through life insurance offices

LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSIONS AND SUPERANNUATION SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES 1961–62 TO 1964–65

	1961–62	1962–63	1963–64	1964–65
Income—	$'000	$'000	$'000	$'000
Contributions—				
Employees	3,576	4,164	4,892	5,275
Employing authorities	4,260	4,952	5,856	6,462
	No.	No.	No.	No.
Contributors at end of year	49,754	51,119	56,619	58,708

Parliamentary pension and superannuation schemes

Pensions and superannuation schemes have been established for members of the Commonwealth and State Parliaments. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or State Governments contribute.

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1964–65

	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Income—								
Contributions—								
Members . .	138	76	57	36	23	42	34	407
Government . .	120	59	108	36	54	42	3	421
Interest . . .	67	26	13	50	21	18	4	199
Total income . .	*325*	*161*	*178*	*122*	*98*	*101*	*41*	*1,027*
Expenditure—								
Pension payments(*a*) .	185	85	139	36	36	42	44	566
Other . . .	31	22	4	4	3	2	..	67
Total expenditure .	*216*	*107*	*144*	*39*	*39*	*45*	*44*	*634*
Assets at end of year—								
Cash—								
Deposits with Treasury . . .	26	20	33	1	12	4	..	96
Other deposits and cash . . .	..	..	36	..	..	..	4	40
Commonwealth Government securities .	428	92	70	..	163	45	61	860
Local government and semi-governmental securities . .	775	421	200	975	253	313	4	2,941
Other assets . .	..	65	..	10	6	4	1	86
Total assets .	1,229	598	339	986	434	367	69	4,022
Less Sundry creditors, etc. . . .	..	40	..	1	..	..	3	43
Accumulated funds .	*1,229*	*559*	*339*	*985*	*434*	*367*	*66*	*3,978*
	No.	No.	No.	No.	No.	No.	No.	No.
Contributors at end of year—								
Males . . .	179	94	100	77	56	81	53	640
Females . . .	5	..	..	..	3	1	1	10
Pensioners at end of year—								
Ex-members . .	67	43	40	19	14	19	15	217
Widows . . .	32	26	34	16	15	24	5	152

(*a*) Includes lump sum payments.

Coal and oil-shale mine workers' superannuation schemes

In all States except South Australia superannuation schemes have been established for coal and oil-shale mine workers. These schemes are operated through funds to which mine workers, mine owners and the State Governments contribute.

COAL AND OIL-SHALE MINE WORKERS' SUPERANNUATION SCHEMES(a) 1961-62 TO 1964-65

	1961–62	1962–63	1963–64	1964–65
	$'000	$'000	$'000	$'000
Income—				
Contributions—				
Mine workers	746	766	777	864
Mine owners	3,216	3,364	3,412	3,780
State Governments	358	356	344	330
Interest, dividends, rent	822	874	920	976
Total income	*5,142*	*5,360*	*5,453*	*5,950*
Expenditure—				
Pension payments	4,262	4,432	4,633	5,213
Lump sum payments	66	6	23	8
Refunds of contributions	2	6	..	9
Administration	114	114	118	122
Total expenditure	*4,444*	*4,558*	*4,773*	*5,352*
Assets at end of year—				
Deposits with Treasury	160	208	272	357
Other deposits and cash	1,044	108	37	14
Commonwealth Government securities	128	118	118	118
Local government and semi-governmental securities	15,216	16,890	17,602	18,146
Other assets	352	380	485	499
Total assets	16,900	17,704	18,514	19,133
Less Sundry creditors, statutory reserve funds, etc.	n.a.	n.a.	6,850	164
Accumulated funds	n.a.	n.a.	*11,664*	*18,969*
	No.	No.	No.	No.
Contributors at end of year—				
Males	16,182	15,700	15,325	15,329
Females	15	15	19	15
Pensioners at end of year—				
Former employees—				
Males	6,598	6,693	6,643	6,677
Females	2	2	2	2
Widows	4,186	4,216	4,375	4,424
Children	34	34	56	53

(*a*) Operating in all States except South Australia.

Private superannuation, pension and retiring allowance schemes

Details of the results of a survey of private superannuation, pension and retiring allowance schemes conducted by private businesses for the benefit of their employees during the year ended June 1963 or the accounting period nearest that year and of similar surveys conducted in 1960–61 and 1961–62 are published in Year Book No. 51 (pages 898–900).

In 1955–56, 1960–61, 1961–62, and 1962–63 sample surveys were conducted of pension and retiring allowance schemes in private businesses subject to pay-roll tax, other than in rural industries, private domestic service, and certain businesses such as accountants, trade associations, consultant engineers, etc. Commonwealth Government airlines and banks were included where they had established their own funds separately from the Commonwealth superannuation funds, but statutory coal miners' pension funds were excluded. Details were asked for three types of pension and retiring allowance schemes. They were (*a*) schemes operated through life insurance offices, (*b*) schemes operated through separately constituted funds, and (*c*) direct payments of pensions and retiring allowances.

The results of the 1955–56 survey are available in *Finance* Bulletin No. 47, Part I—*Public and Private Finance*, and the 1960–61, 1961–62 and 1962–63 survey results were published in *Insurance and Other Private Finance*, Bulletin No. 2 and Year Book No. 51 (pages 898–900). Details of the operations of government and semi-governmental superannuation schemes were published in *Insurance and Other Private Finance*, Bulletins No. 1 and No. 2 for 1961–62 and 1962–63 respectively, and in Parts I of the *Finance Bulletin* for years prior to 1961–62. The results of the 1963–64 survey of government and semi-governmental superannuation schemes were published in March 1966 in a mimeographed bulletin. The monthly bulletin *Life Insurance Statistics* contains some information on the superannuation business of life insurance offices.

In the years 1956–57 to 1958–59, 1963–64 and 1964–65 information was collected from a small number of selected larger funds, and for the years 1955–56 and 1960–61 to 1962–63 the returns for the selected pension schemes were extracted from the sample surveys and tabulated in respect only of the business of their separately constituted funds. Results of the survey for 1964–65, together with comparative figures for previous years, were published in April 1966 in a mimeographed bulletin. Although only a small number of funds were included in these surveys, they accounted for about 34 per cent of total assets of the funds covered by the more comprehensive sample survey in 1962–63.

In order to improve the coverage of the surveys of selected pension funds, a larger number of funds was surveyed in 1964–65 than in previous surveys of selected funds. The separately constituted private pension funds included in the 1964–65 survey, the results of which are shown below, accounted for about 72 per cent of total contributions, 71 per cent of the income, 68 per cent of the expenditure, and 77 per cent of the assets of the funds included in the 1962–63 sample survey.

Since the *Survey of Selected Private Pension Funds* for 1964–65 was not a representative sample, it is not known to what extent their share of the whole field has changed since the 1962–63 survey; nor is the pattern of income, expenditure and asset distribution of the large funds included in this survey necessarily representative of the whole field.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: INCOME AND EXPENDITURE, 1964–65(*a*)

($ million)

INCOME

Employees' contributions	Employers' contributions	Interest on Commonwealth, local and semi-governmental securities	Other interest, dividends and rent	Profit from sale or revaluation of assets	Other income(*b*)	Total income
21.8	40.7	15.1	21.6	2.8	2.4	104.4

EXPENDITURE

Pensions paid			Lump sum payments				Loss on sale or revaluation of assets	Other expenditure (*c*)	Total expenditure
			To former employees		To widows or children	Total			
Former employees	Widows or children	Total	On retirement	On resignation or dismissal					
10.6	2.0	12.6	7.6	8.4	2.3	18.3	4.2	2.3	37.5

(*a*) Year ended 30 June 1965 or substituted accounting period. (*b*) Includes receipts from life insurance offices, sub-underwriting commissions, etc. (*c*) Includes administrative expenses payable from funds, payments to life insurance offices, etc.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: ASSETS 1964–65(*a*)

($ million)

Cash in hand or in bank	Commonwealth Government securities	Local and semi-governmental securities	Loans on mortgage: To companies	Loans on mortgage: Other	Company debentures, notes and other loans to companies	Shares in companies	Land and buildings	All other assets (*b*)	Total assets	Less sundry creditors, etc.	Amount of funds in Australia
AMOUNT											
16.7	116.2	176.5	24.3	19.5	167.4	177.5	4.4	9.3	711.8	4.3	707.5
PERCENTAGE DISTRIBUTION											
2.3	16.3	24.8	3.4	2.7	23.5	24.9	0.6	1.3	100.0	0.6	99.4

(*a*) Book values at balance dates in 1964–65. (*b*) Includes loans to authorised dealers in the short-term money market and loans to building societies.

PROBATES AND LETTERS OF ADMINISTRATION

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION: STATES

		New South Wales 1965–66 (*a*)	Victoria 1965	Queensland 1964–65	South Australia 1965	Western Australia 1965–66	Tasmania 1965 (*b*)
Estates	no.	27,014	19,494	8,411	4,415	3,139	1,685
Gross value	$'000	n.a.	305,121	95,668	68,470	42,240	26,414
Net value	$'000	392,030	275,060	86,422	62,624	38,788	24,214

(*a*) Total estates of deceased persons assessed for death duty. (*b*) Estates dealt with by the Taxation Department.

CHAPTER 20

PUBLIC FINANCE

The subject of public finance is dealt with in this chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand also a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement the Commonwealth assumed the liability to bondholders for the States' securities existing at the date of the Agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of such securities. In view of this it is convenient to deal with the Commonwealth and State Government securities on issue in a separate division of this chapter (page 808). The subject of income taxes is also dealt with in a separate division at the end of this chapter (page 823).

For further detailed information on the subjects covered by this chapter *see* the annual bulletins *Commonwealth Finance; State, Territory and Local Government Authorities' Finance and Government Securities;* and *Commonwealth Taxation Assessments.* Current information in summarised form is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics* and the *Digest of Current Economic Statistics*. A mimeographed statement *Commonwealth, State and Territory Taxation Collections* is issued annually as soon as possible after the relevant information has been assembled.

COMMONWEALTH FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pages 16–19 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Sections 87 and 96 deal with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Year Book, and on pages 766-75 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The *Audit Act* 1901–1966 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth finances is the responsibility of the Treasurer of the Commonwealth.

Commonwealth Public Account

Nature of account

The Commonwealth Public Account includes the Consolidated Revenue Fund, the Trust Fund and the Loan Fund. Ordinary revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, war and repatriation services, social services, payments to the States, Commonwealth business undertakings (mostly postal, telephone and telegraph), and administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth at some future time. The Loan Fund receives its funds from the sale of Commonwealth securities, and expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States, either by way of distribution of the proceeds of loans raised by the Commonwealth on their behalf or in accordance with the provisions of the Commonwealth and State Housing Agreements, and the remaining disbursements are for Commonwealth purposes such as defence or war service land settlement.

Summary of receipts and expenditure

A summary of transactions on the Commonwealth Public Account for 1965–66 and the four preceding years is given in the table which follows. The transactions are recorded on a cash basis.

COMMONWEALTH PUBLIC ACCOUNT: SUMMARY OF TRANSACTIONS 1961-62 TO 1965-66

($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
Expenditure(*a*)(*b*)	3,786.0	3,987.7	4,389.1	4,784.6	5,379.7
Receipts(*b*)	3,441.0	3,565.3	3,993.3	4,627.9	5,128.6
Excess of expenditure over receipts—borrowing requirement	*345.0*	*422.4*	*395.8*	*156.8*	*251.1*
Borrowings—					
Overseas loan proceeds(*c*)	58.8	139.3	73.3	43.1	37.6
Less redemptions, etc.	58.9	38.5	47.3	80.1	77.4
Net proceeds	−0.1	100.9	26.0	−37.0	−39.8
Australian loan proceeds(*d*)	463.1	518.7	578.4	501.7	546.2
Less redemptions, etc.	172.0	165.1	153.4	270.2	254.5
Net proceeds	291.0	353.6	425.1	231.5	291.6
Total net loan proceeds	290.9	454.5	451.1	194.5	251.8
Residual financing—					
Borrowings from Reserve Bank	+44.0	−170.0	−68.0	+38.0	−36.0
Treasury Notes (issue +, redemption −)	..	+139.0	+13.6	−72.1	+35.7
Cash balances (increase −, decrease +)	+10.0	−1.1	−0.9	−3.6	−0.4
	+54.0	−32.1	−55.3	−37.7	−0.7
Total	*345.0*	*422.4*	*395.8*	*156.8*	*251.*

(*a*) Excludes payments to Loan Consolidation and Investment Reserve: 1961–62, $44.3 million; 1962–63, $52.8 million; 1963–64, $29.8 million; 1964–65, $222.7 million and 1965–66, $210.5 million. (*b*) Comparisons between these figures are affected by accounting changes. (*c*) Overseas refinancing operations are treated as adding to both loan proceeds and redemptions where they involve receipts into and expenditures from Loan Fund. (*d*) Excludes State domestic raisings and loans raised on behalf of Qantas Empire Airways and Australian National Airlines Commission.

Minus sign (−) denotes decrease.

All Commonwealth funds: summary of receipts and expenditure

The following table represents a reclassification of Commonwealth Government receipts and expenditure in a national accounts form. It includes the Commonwealth Government components (with slight re-arrangement) of Tables 57 and 60 in *Australian National Accounts, National Income and Expenditure* 1953–54 to 1965–66. Advances to semi-governmental business undertakings are included in 'Other advances', but grants to other semi-governmental bodies

(National Capital Development Commission, Australian National University, Stevedoring Industry Authority, etc.) are classified according to the final expenditure of the authority concerned.

ALL COMMONWEALTH FUNDS: RECEIPTS AND EXPENDITURE, 1961-62 TO 1965-66

($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
EXPENDITURE					
Current expenditure on goods and services	708	753	841	1,003	1,236
Capital expenditure on new assets and stocks	172	209	224	280	312
Purchases of existing assets	5	4	4	4	5
Subsidies	83	71	101	86	127
Interest	67	66	75	81	74
Cash benefits to persons	901	937	1,029	1,080	1,156
Grants towards private capital expenditure	10	9	9	26	47
Overseas grants and contributions	65	73	86	106	128
Grants to States	799	852	895	958	1,076
Advances to States	127	130	136	142	173
Other advances	164	161	192	209	159
Total expenditure	**3,102**	**3,264**	**3,592**	**3,974**	**4,492**
RECEIPTS					
Taxation	2,836	2,882	3,220	3,788	4,188
Interest, rent and dividends	82	90	92	103	116
Net revenue of business undertakings	76	111	123	147	153
Fees and charges for goods and services	38	40	52	55	63
Sales of existing assets	6	8	12	17	13
Repayments of advances to States	18	21	21	22	28
Repayments of other advances	24	32	34	37	36
Other net receipts(*a*)	22	80	38	−196	−106
Total receipts	**3,102**	**3,264**	**3,592**	**3,974**	**4,492**

(*a*) Includes borrowing on treasury bills and Commonwealth bonds and net decrease in cash balances. Minus sign (—) denotes decrease.

All Commonwealth funds: expenditure, economic type and function

In the following two tables particulars of expenditure for 1965–66 shown in the previous table have been reclassified to a 'net' basis by taking account of the relevant items shown as receipts in that table, e.g. fees and charges for goods and services, sales of existing assets, etc., and the resulting totals have been classified by economic type and by function.

ALL COMMONWEALTH FUNDS: RECEIPTS AND EXPENDITURE

YEAR ENDED 30 JUNE 1966

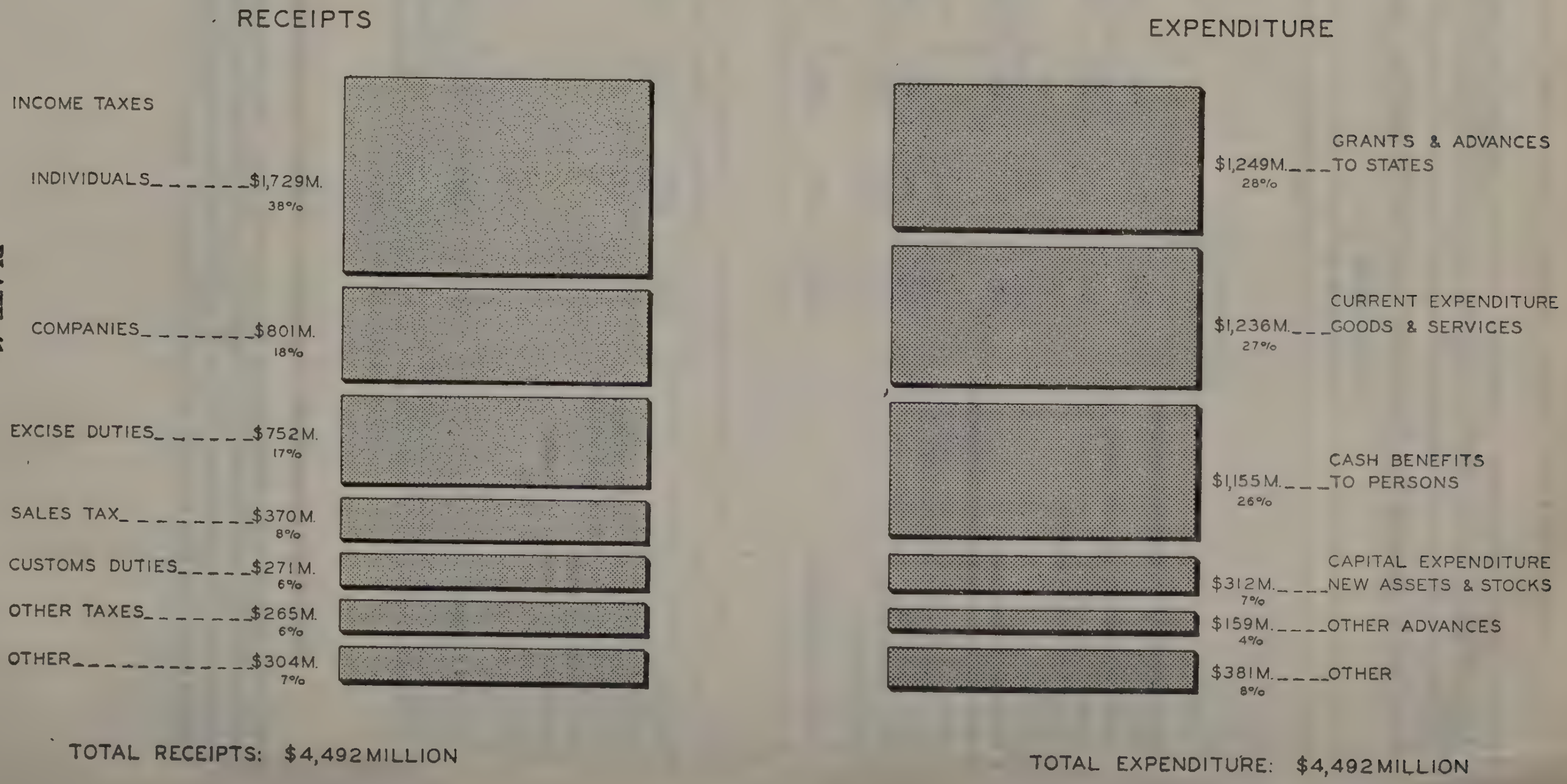


PLATE 41

ALL COMMONWEALTH FUNDS: TOTAL NET EXPENDITURE, BY ECONOMIC TYPE AND FUNCTION, 1965-66

($ million)

NET CURRENT EXPENDITURE

	Expenditure on goods and services	Cash benefits	Subsidies	Overseas grants and contributions	Grants to States	Interest	Grants towards private capital expenditure	Total
Law, order and public safety	7	..	..	..	..	..	..	7
Education	21	21	..	..	33	..	..	75
Cultural and recreational facilities . . .	5	..	..	..	..	..	..	5
Public health . .	20	229	..	1	..	..	..	250
Welfare	14	698	..	..	..	..	9	721
War and defence . .	722	..	..	27	..	..	..	748
Repatriation	62	201	..	..	..	..	6	268
Development of resources and assistance to industry	106	..	98	1	11	..	..	217
Transport and communication	25	..	9	5	..	..	..	40
Legislature and general administration . .	114	..	..	2	..	..	..	116
External affairs . .	17	..	..	29	..	..	..	46
Immigration	33	4	..	1	..	..	..	38
Regulation of trade and industry	9	3	16	..	..	..	..	28
Housing	4	..	..	..	..	..	13	18
Other	3	..	4	63	..	..	19	89
Not allocated to function	10	..	..	..	832	12	..	855
Total net current expenditure . .	**1,173**	**1,156**	**127**	**128**	**876**	**12**	**47**	**3,521**

NET CAPITAL EXPENDITURE

	Expenditure on new assets and stocks	Net purchases of existing assets	Grants to States	Net advances to States	Other net advances	Total
Education	9	..	32	..	..	43
Cultural and recreational facilities	11	..	..	..	..	11
Public health . .	3	..	5	..	1	9
War and defence . .	..	4	..	..	−41	−38
Development of resources and assistance to industry	12	..	4	11	2	28
Transport and communication—						
Post office . .	184	1	..	..	..	185
Civil aviation . .	22	..	..	..	20	42
Roads	14	..	145	2	..	162
Other	12	..	12	14	5	43
Power, fuel and light .	..	..	..	..	42	42
Housing	15	−13	..	114	49	165
Other	27	..	..	..	..	27
Not allocated to function	4	..	..	3	46	52
Total net capital expenditure . .	**312**	**−7**	**199**	**144**	**123**	**771**

The following table shows net expenditure from all Commonwealth funds for the years 1961–62 to 1965–66, classified according to function.

ALL COMMONWEALTH FUNDS: TOTAL NET EXPENDITURE, BY FUNCTION 1961-62 TO 1965-66

($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
NET CURRENT EXPENDITURE					
Law, order and public safety	4	4	5	6	7
Education	35	40	46	64	75
Cultural and recreational facilities	3	3	4	5	5
Public health	174	188	202	220	250
Welfare	587	603	665	696	721
War and defence	400	421	451	551	748
Repatriation	205	216	235	240	268
Development of resources and assistance to industry	132	126	162	166	217
Transport and communication	27	30	33	37	40
Legislature and general administration	73	74	88	102	116
External affairs	28	27	31	41	46
Immigration	22	24	29	36	38
Regulation of trade and industry	12	14	16	18	28
Housing	2	3	3	15	18
Other	38	46	60	69	89
Not allocated to function	692	720	760	781	855
Total net current expenditure	**2,434**	**2,539**	**2,790**	**3,047**	**3,521**
NET CAPITAL EXPENDITURE					
Education	19	19	21	42	43
Cultural and recreational facilities	8	12	9	12	11
Public health	5	6	5	7	9
War and defence	−2	−3	45	17	−38
Development of resources and assistance to industry	14	7	12	18	28
Transport and communication—					
Post office	94	123	128	165	185
Civil aviation	26	4	3	42	42
Roads	110	122	131	147	162
Other	24	34	35	31	43
Power, fuel and light	32	45	48	45	42
Housing	157	155	146	154	165
Other	36	2	28	19	27
Not allocated to function	19	51	19	39	52
Total net capital expenditure	**542**	**577**	**631**	**738**	**771**

This table classifies by function the expenditure on goods and services (reclassified to a net basis) shown in the table on page 759.

ALL COMMONWEALTH FUNDS: NET EXPENDITURE ON GOODS AND SERVICES BY FUNCTION(*a*), 1961-62 TO 1965-66

($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
NET CURRENT EXPENDITURE					
Law, order and public safety	4	5	5	6	7
Education	11	12	15	19	21
Cultural and recreational facilities	3	3	4	5	5
Public health	13	15	14	16	20
Welfare	12	13	14	15	14
War and defence	398	413	447	540	722
Repatriation	44	49	53	56	62
Development of resources and assistance to industry	59	65	74	95	106
Transport and communication	18	21	24	27	25
Legislature and general administration	73	73	84	100	114
External affairs	7	10	14	15	17
Immigration	19	21	26	33	33
Regulation of trade and industry	4	7	8	9	9
Housing	2	3	3	4	4
Other	2	1	1	4	3
Not allocated to function	3	3	2	5	10
Total net current expenditure	**671**	**713**	**789**	**948**	**1,173**
NET CAPITAL EXPENDITURE—NEW ASSETS AND STOCKS					
Education	7	6	8	9	9
Cultural and recreational facilities	8	12	9	12	10
Public health	2	2	3	3	3
Development of resources and assistance to industry	8	7	8	13	12
Transport and communication—					
Post office	93	122	128	164	184
Civil aviation	8	8	11	16	22
Roads	8	10	9	9	14
Other	6	6	9	8	12
Housing	9	11	9	11	15
Other	11	13	20	21	22
Not allocated to function	12	12	9	14	10
Total net capital expenditure	**172**	**209**	**224**	**280**	**312**

(*a*) This table includes the Commonwealth Government component of Tables 66 and 75 in *Australian National Accounts, National Income and Expenditure* 1953–54 to 1965–66 together with net expenditure on stocks.

Main components of Commonwealth expenditure

The tables on pages 764–73 supply details of some of the main components of total expenditure of the Commonwealth Government.

Subsidies

The following table shows details of Commonwealth expenditure from all funds on assistance to primary producers, subsidies and bounties for the years 1961–62 to 1965–66. Expenditure on special relief such as drought, frost, flood, and bush fire, etc., is not included here (included as cash benefits to persons in tables, pages 765–6) nor is expenditure from the proceeds of certain taxes on primary products and profits from marketing schemes, which have been paid to trust funds for the purpose of price or other stabilisation schemes or for distribution to producers (*see* pages 786–8). Payments to the States for cattle tick control, dairy industry extension and agricultural advisory services are not included under this heading, but included under the heading Grants to the States (*see* pages 767–9). Further information relating to assistance to primary producers is given in the chapter Rural Industry. Details of price stabilisation subsidies and of various forms of assistance to primary producers for earlier years are given on pages 414 and 1014–15, respectively, of Year Book No. 38.

ALL COMMONWEALTH FUNDS: EXPENDITURE ON SUBSIDIES 1961-62 TO 1965-66

($'000)

Type of subsidy	1961–62	1962–63	1963–64	1964–65	1965–66
Development of resources and assistance to industry—					
Dairy industry	27,000	27,000	27,000	27,000	27,000
Wheat prices stabilisation	33,816	14,576	22.634	1,892	18,069
Phosphate fertilisers	..	..	18,806	22,880	24,983
Oil search	5,086	10,000	9,434	8,838	11,382
Copper	1,374	1,398	1,390	300	1
Gold mining industry	1,318	1,582	1,496	1,860	2,462
Pyrites	794	796	1,228	924	854
Cotton	630	574	946	1,916	3,686
Processed milk products	..	568	800	864	614
Sulphate of ammonia	..	360	318	526	427
Vinyl resin	..	..	228	364	1,938
Copper and brass strip	..	36	124	154	43
Northern Territory—					
Railway freight	72	80	92	90	140
Transport of stud stock	34	30	48	40	59
Ship construction	3,106	3,600	4,436	5,538	7,465
Sulphuric acid	2,018	2,188	2,316	1,822	1,906
Tractor	1,754	1,926	2,014	2,754	1,902
Cellulose acetate flake	138	202	218	134	228
Rayon yarns	138	270	..	..	..
Flax fibre	24	36	4	..	..
Poultry industry assistance	..	..	..	..	5,536
Transport and communication—					
Air services	1,000	1,000	1,000	1,000	1,200
Coastal shipping service—					
King Island and Bass Strait Islands	..	..	24	66	161
Tasmania	26	..	..	..	..
Northern Territory	8	8	8	14	43
Northern Territory airmail service	66	74	116	118	118
South American shipping service	100	222	304	278	335
Regulation of trade and industry—					
Stevedoring industry	4,346	4,200	5,742	6,094	6,149
Petrol prices stabilisation	..	..	..	..	9,920
Northern Territory petrol prices	..	..	..	..	345
Other	230	304	300	326	400
Total	**83,078**	**71,030**	**101,026**	**85,792**	**127,366**

Cash benefits to persons

Particulars of cash benefits paid to persons in each State and Territory during 1965–66 are shown in the next table and the total payments during the years 1961–62 to 1965–66 are shown in the table following.

ALL COMMONWEALTH FUNDS: CASH BENEFITS TO PERSONS STATES AND TERRITORIES, 1965-66

($'000)

Type of benefit	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
ducation—										
Commonwealth Scholarship Scheme—										
Post-graduate	1,400	146	60	64	29	34	..	..	..	1,733
University	3,552	3,134	1,595	921	657	204	..	..	..	10,064
Advanced education	59	83	16	6	28	6	..	..	..	198
Secondary	1,263	1,872	912	527	444	180	..	..	..	5,197
Technical	154	290	69	53	28	6	..	..	..	600
Soldiers' Children Education Scheme	(a) 891	682	443	(b) 237	163	105	(c)	(d)	13	2,534
Other	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	812
Total, education	*7,319*	*6,207*	*3,095*	*1,808*	*1,349*	*535*	(e)	(e)	*13*	(f) *21,140*
ealth—										
Hospital benefits	16,375	8,709	6,062	3,553	3,389	1,235	85	110	..	39,520
Nursing home benefits	8,711	4,640	3,316	1,905	1,897	756	..	..	..	21,223
Medical benefits	16.477	11,156	4.144	4,978	3,387	1,140	..	..	..	41,282
Medical benefits for pensioners	5,389	3,404	1,907	1,285	958	386	..	35	..	13,365
Milk for school children	2,910	2,382	1.256	799	619	398	56	74	..	8,493
Pharmaceutical benefits	27,611	18,951	9,013	5,670	4,205	2,098	..	166	..	67,713
Pharmaceutical benefits for pensioners	10,034	5,674	3,772	2,289	1,665	637	..	..	..	24.071
Tuberculosis campaign	6,585	3,019	2,068	662	697	338	..	..	..	13,370
Total, health	*94,092*	*57,935*	*31,538*	*21,141*	*16,817*	*6,988*	*141*	*385*	..	229,037
elfare—										
Age and invalid pensions	174,201	111,019	70,859	39.691	30,760	13,439	1.102	794	489	442,355
Child endowment	61,050	49,235	26,626	16,988	13,624	6,318	1,057	1,478	56	176,432
Commonwealth rehabilitation service	537	427	251	203	187	54	..	..	..	1,660
Funeral benefits	410	282	165	91	66	33	..	2	..	1,050
Maternity allowances	2,475	2,040	1,075	657	536	243	55	70	8	7,159
Tuberculosis campaign—allowances	437	291	344	93	61	50	7	2	..	1,286
Unemployment benefits	2.773	1,216	2,458	709	368	275	3	11	..	7,813
Sickness benefits	2,665	1,667	961	512	457	174	20	27	..	6,483
Special benefits	368	551	174	62	47	57	..	1	..	1,261
Widows' pensions	18,753	12,692	7,987	4,802	3,602	1,791	159	165	65	50,017
Other	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	2,066
Total, welfare	*263,669*	*179,420*	*10.900*	*63,808*	*49,708*	*22,434*	*2,403*	*2,550*	*618*	(f) *697,580*
evelopment of resources and assistance to industry—										
Wool Research Studentships and Fellowships	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	85
epatriation—										
War and service pensions and allowances	a 68,511	56,228	30,450	b 17,692	16,208	7.883	(c)	(d)	1,690	198.662
Other	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	1,849
Total, repatriation	*68,511*	*56,228*	*30,450*	*17,692*	*16,208*	*7,883*	(e)	(e)	*1,690*	(f) *200,511*
nmigration—										
Maintenance of migrant families	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	..	4,380
egulation of trade and industry—										
Coal mining industry—long service leave	658	2	184	..	43	6	..	..	..	893
Stevedoring industry	(e)	(e)	(e)	(e)	(e)	(e)	(e)	..	..	1,726
Total, regulation of trade and industry	*658*	*2*	*184*	(e)	*43*	*6*	(e)	..	..	(f) *2,619*
ousing—										
Commonwealth-State Housing Agreement—Contribution to rental losses	..	..	213	..	..	..	..	..	..	213
Total	434,249	299,792	176,380	104,449	84,125	37,846	2,544	2,935	2,321	f 1,155,565

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Included in South Australia) Included in New South Wales. (e) Not allocable. (f) Includes items not allocable. *See* footnote (e).

ALL COMMONWEALTH FUNDS: CASH BENEFITS TO PERSONS 1961-62 TO 1965-66

($'000)

Type of benefit	1961–62	1962–63	1963–64	1964–65	1965–66
Education—					
Commonwealth scholarship scheme—					
Post-graduate	452	602	834	1,236	1,733
University	5,402	6,468	6,897	7,903	10,064
Advanced education	..	..	..	..	198
Secondary	..	..	..	3,382	5,197
Technical	..	..	..	212	600
Soldiers' Children Education Scheme	1,698	1,967	2,302	2,311	2,534
Other	314	387	433	573	812
Total, education	*7,866*	*9,424*	*10,464*	*15,614*	*21,140*
Health—					
Hospital benefits	44,404	40,681	38,336	38,995	39,520
Nursing home benefits	..	6,645	17,880	19,796	21,223
Medical benefits	21,823	23,474	24,848	35,277	41,282
Medical benefits for pensioners	8,796	9,146	9,531	9,320	13,365
Milk for school children	7,483	7,454	7,775	8,059	8,493
Pharmaceutical benefits	52,185	57,044	58,237	60,638	67,713
Pharmaceutical benefits for pensioners	18,195	19,867	20,602	21,564	24,071
Tuberculosis campaign	8,642	9,728	10,453	10,128	13,370
Total, health	*161,528*	*174,039*	*187,665*	*203,779*	*229,037*
Welfare—					
Age and invalid pensions	360,489	375,507	399,880	426,597	442,355
Child endowment	132,755	135,421	168,758	172,830	176,432
Commonwealth Rehabilitation Service	1,447	1,395	1,489	1,604	1,660
Funeral benefits	752	802	812	866	1,050
Maternity allowances	7,817	7,563	7,457	7,294	7,159
Tuberculosis campaign—allowances	1,746	1,607	1,593	1,458	1,286
Unemployment benefits, sickness and special benefits	31,810	29,315	21,625	14,540	15,557
Widows' pensions	30,189	31,353	41,569	47,044	50,017
Other	958	430	470	1,025	2,066
Total, welfare	*567,962*	*583,394*	*643,654*	*673,258*	*697,580*
Development of resources and assistance to industry—					
Wool Research Studentships and Fellowships	46	43	62	58	85
Repatriation—					
War and service pensions and allowances	154,540	162,693	179,051	179,313	198,662
Other	1,070	1,146	1,845	1,694	1,849
Total, repatriation	*155,610*	*163,839*	*180,896*	*181,007*	*200,511*
Immigration—					
Maintenance of migrant families	3,323	3,159	3,472	3,752	4,380
Regulation of trade and industry—					
Coal mining industry—long service leave	1,290	954	910	1,021	893
Stevedoring industry	2,994	1,868	1,674	1,614	1,726
Total, regulation of trade and industry	*4,284*	*2,822*	*2,584*	*2,635*	*2,619*
Housing—					
Commonwealth-State Housing Agreement—Contribution to rental losses	130	37	45	130	213
Total	900,749	936,806	1,028,842	1,080,233	1,155,565

Further information concerning items in the two preceding tables is given in the appropriate chapters of this Year Book.

Payments to or for the States

An outline of the provisions of the Constitution providing for the Commonwealth to make payments to the States, and of the systems which followed, is given in earlier issues of the Year Book (*see* No. 37, pages 633 to 638). A distinction is made in this Year Book between (*a*) direct Commonwealth financial assistance to the States in the form of grants to provide revenue for general and specific purposes and (*b*) those forms of assistance for developmental and other specific purposes which include, in part or in total, payments made in the form of repayable advances. Some information about the more important or most recent of these forms of financial assistance is given on pages 772–5, but for greater detail on these and other forms of financial assistance *see* Year Book No. 51, pages 921–4, and earlier issues. Further information is available also in the chapters of this issue dealing with the respective subjects.

Grants. The following three tables show particulars of the amounts paid to the States as grants for the purposes referred to in (*a*) on page 766.

ALL COMMONWEALTH FUNDS: GRANTS TO THE STATES, BY FUNCTION, 1965-66

($'000)

Function	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Current—							
Education—							
Research grants	500	331	105	223	142	77	1,378
Universities	13,075	8,071	3,863	3,420	2,152	970	31,551
Welfare—							
Housekeeper services	12	8	..	..	1	1	22
Development of resources and assistance to industry—							
Drought assistance	5,532	..	4,174	..	..	..	9,706
Cattle tick control	348	..	..	..	..	..	348
Agricultural extension services	328	298	294	104	104	74	1,202
Total, development, etc.	6,208	298	4,468	104	104	74	11,256
Not allocated to function—							
Financial assistance grants	255,001	191,922	113,356	86,467	78,474	32,131	757,351
Special grants	..	..	..	..	24,038	17,732	41,770
Interest and exchange	5,834	4,254	2,192	1,408	948	534	15,170
Sinking fund and redemption	5,991	4,225	2,272	2,335	1,726	1,212	17,761
Total, not allocated	266,826	200,401	117,820	90,210	105,186	51,609	832,052
Total, current purposes	*286,621*	*209,109*	*126,256*	*93,957*	*107,585*	*52,731*	*876,259*
Capital—							
Education—							
Colleges of advanced education	750	..	..	..	232	..	982
Secondary	3,709	2,799	1,435	859	502	331	9,635
Technical	3,492	336	1,448	350	269	334	6,230
Universities	5,267	4,424	1,837	2,597	901	201	15,227
Total, education	13,218	7,559	4,720	3,806	1,904	866	32,074
Public health—							
Mental institutions	1,717	1,567	146	242	338	529	4,539
Tuberculosis hospitals—Capital	390	169	110	14	2	12	696
Total, public health	2,107	1,736	256	256	340	541	5,235
Development of resources and assistance to industry—							
Western Australia—Northern development	..	..	..	..	1,112	..	1,112
Flood mitigation	1,540	..	..	..	..	..	1,540
Investigation of water resources	188	80	313	52	211	16	860
Total, development, etc.	1,728	80	313	52	1,323	16	3,512
Transport and communication—							
Commonwealth aid roads	39,191	27,508	25,538	16,024	24,739	7,000	140,000
Railway projects	..	..	..	4,508	7,341	..	11,849
Cattle roads	..	..	2,000	..	1,500	..	3,500
Western Australia—Northern development	..	..	..	..	577	..	577
Gordon River road	..	..	..	..	..	1,840	1,840
Total	39,191	27,508	27,538	20,532	34,157	8,840	157,766
Other—							
Exmouth township	..	..	..	..	750	..	750
Total, capital purposes	*56,244*	*36,883*	*32,827*	*24,646*	*38,474*	*10,263*	*199,338*
Grand total	**342,865**	**245,992**	**159,083**	**118,603**	**146,059**	**62,994**	**1075596**

ALL COMMONWEALTH FUNDS: TOTAL GRANTS TO THE STATES BY FUNCTION, 1961–62 TO 1965–66

($'000)

Function	1961–62	1962–63	1963–64	1964–65	1965–66
Current—					
Education—					
Research grants	..	..	..	..	1,378
Universities	16,236	18,546	21,080	28,942	31,551
Welfare—housekeeper services	28	28	28	24	22
Development of resources and assistance to industry—					
Drought assistance	..	..	..	..	9,706
Cattle tick control	660	536	518	414	348
Agricultural extension services	1,068	1,066	1,262	1,212	1,202
Tobacco industry extension services	..	48	48	..	..
Total, development, etc	1,728	1,650	1,828	1,626	11,256
Not allocated to function—					
Financial assistance grants	584,280	608,640	635,968	681,348	757,351
Special grants	22,462	22,502	22,900	31,720	41,770
Interest and exchange	15,170	15,170	15,170	15,170	15,170
Sinking fund and redemption	13,478	14,496	15,690	16,646	17,761
Additional assistance grants	20,000	35,000	40,000	..	..
Total, not allocated	655,390	695,808	729,728	744,882	832,052
Total, current purposes	*673,382*	*716,032*	*752,664*	*775,474*	*876,259*
Capital—					
Education—					
Colleges of advanced education	..	..	..	..	982
Secondary	..	..	..	9,906	9,635
Technical	..	..	..	10,000	6,230
Universities	12,086	12,872	12,780	12,332	15,227
Total, education	12,086	12,872	12,780	32,238	32,074
Public health—					
Mental institutions	1,648	1,590	1,594	2,504	4,539
Tuberculosis hospitals—capital	774	984	598	696	696
Total, public health	2,422	2,574	2,192	3,200	5,235
Development of resources and assistance to industry—					
Western Australia—Northern development	3,410	2,864	1,816	2,018	1,112
Flood mitigation	..	..	400	1,300	1,540
Cattle dip chemicals	..	106	..	..	..
Western Australia waterworks	122	..	..	..	..
Encouragement of meat production	10	2	..	..	..
Investigation of water resources	..	..	..	687	860
Total, development, etc.	3,542	2,972	2,216	4,007	3,512
Transport and communication—					
Commonwealth aid roads	100,012	108,000	116,000	130,000	140,000
Railway projects	5,600	5,678	5,182	7,386	11,849
Cattle roads	2,300	3,400	3,596	3,800	3,500
Western Australia—Northern development	..	..	..	..	577
Replacement of Derby jetty	..	300	350	150	..
Gordon River road	..	..	270	1,094	1,840
Coal loading works	..	..	80	120	..
Total, transport, etc.	107,912	117,378	125,478	142,550	157,766
Other—					
Exmouth township	..	..	..	380	750
Total, capital purposes	*125,962*	*135,796*	*142,666*	*182,376*	*199,338*
Grand total	**799,344**	**851,828**	**895,330**	**957,850**	**1,075,596**

ALL COMMONWEALTH FUNDS: GRANTS TO THE STATES TO 30 JUNE 1966(*a*)

($ million)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Section 87 of Constitution, 1900-01 to 1909-10	55.5	40.0	17.8	12.4	17.5	5.2	148.4
Surplus Revenue Acts, 1910–11 to 1926–27	83.0	62.3	30.3	19.8	19.5	8.7	223.7
Financial Agreements, 1927–28 to 1965–66	314.3	218.4	116.0	85.4	61.1	33.8	829.1
Special grants(*b*)	..	..	..	156.2	297.9	153.4	607.5
Income tax reimbursement grants, 1942–43 to 1945–46(*c*)	110.8	48.7	44.4	18.1	19.0	6.8	247.8
Income tax reimbursement special grants, 1945–46 to 1946–47(*c*)	..	..	..	3.3	1.8	0.2	5.4
Entertainments tax reimbursement grants, 1942–43 to 1945–46(*d*)	1.2	2.8	..	0.7	0.7	0.3	5.7
Tax reimbursement grants, 1947–48 to 1958–59(*e*)	1,051.3	672.1	431.9	240.1	216.9	91.3	2,703.7
Additional tax reimbursement grants(*f*)	4.1	2.3	1.6	0.9	0.8	0.3	10.0
Special financial assistance(*g*)	160.8	110.6	62.8	34.7	31.2	13.6	413.7
Additional assistance(*h*)	4.0	2.1	2.3	0.7	0.6	0.3	10.0
Non-recurring grants from excess receipts, 1934–35 to 1936–37	2.4	1.7	0.9	0.5	0.4	0.2	6.0
Financial assistance grants(*i*)	1,457.3	1,077.4	640.5	490.2	444.1	187.1	4,296.6
Additional financial assistance(*j*)	26.6	21.3	20.0	11.5	7.8	7.8	95.0
Special assistance(*k*)	38.7	15.0	30.4	7.3	42.4	5.2	139.0
Grants for road construction, 1922–23 to 1965-66(*l*)	377.4	256.4	252.4	153.3	249.4	67.8	1,356.8
Payments to Commonwealth Aid Roads (Supplementary) Trust Account(*m*)	..	..	..	..	..	..	10.0
Tuberculosis Act 1948—reimbursement of capital expenditure	11.0	4.0	11.2	1.5	4.6	0.7	33.0
Mental institutions—contribution to capital expenditure	9.8	7.8	1.8	1.9	1.7	1.4	24.4
Grants to universities	102.3	67.1	30.3	29.0	19.5	10.3	258.5
Other education	15.9	9.1	5.9	3.3	2.6	1.4	38.1
Railway projects(*n*)	0.2	22.1	..	18.8	16.4	..	57.6
Total	3,826.6	2,641.2	1,700.5	1,289.6	1,455.9	595.8	11,520.0

(*a*) Includes non-recurring grants from excess receipts, but excludes payments on account of the Morgan-Whyalla Waterworks, amounts provided for relief of wheat-growers and other primary producers, and other payments for medical research, social services, etc. (*b*) Under various States Grants Acts. (*c*) Under *States Grants* (*Income Tax Reimbursement*) *Act* 1942. (*d*) Under *States Grants* (*Entertainments Tax Reimbursement*) *Act* 1942. (*e*) Under *States Grants* (*Tax Reimbursement*) *Act* 1946–1948. (*f*) Under *States Grants* (*Additional Tax Reimbursement*) *Act* 1950. (*g*) Under *States Grants* (*Special Financial Assistance*) *Acts* 1951 and 1952. (*h*) Under *States Grants* (*Additional Assistance*) *Act* 1958. (*i*) Under *States Grants Acts* 1959, 1962 and 1965. (*j*) Under *States Grants* (*Additional Assistance*) *Act* 1962. (*k*) Includes payments for unemployment relief, metalliferous mining, forestry, local public works, grants for price control reimbursement, coal strike emergency grant, grants for imported houses, Port Augusta-Port Pirie railway, Western Australian waterworks, cattle tick control, dairy industry extension, agricultural advisory services, cattle roads coal-loading works, eradication of house borers, brigalow lands, cattle dip chemicals, tobacco industry extension services, Exmouth township, drought assistance, flood mitigation, Gordon River road, investigation of water resources, encouragement of meat production, etc. (*l*) Under Main Roads Development, Federal Aid Roads, Federal Aid Roads and Works, and Commonwealth Aid Roads Acts. (*m*) Expenditure not allocable between States. (*n*) Under the *Railway Standardization* (*South Australia*) *Agreement Act* 1949, the *Railway Standardization* (*New South Wales and Victoria*) *Agreement Act* 1958, the *Railway Agreement* (*Queensland*) *Act* 1961, the *Railway Equipment Agreement* (*South Austraila*) *Act* 1961, and the *Railway Agreement* (*Western Australia*) *Act* 1961.

Repayable advances. The next three tables show particulars of the amounts paid to the States as repayable advances for the several purposes referred to in (*b*) on page 766.

ALL COMMONWEALTH FUNDS: ADVANCES TO THE STATES, BY FUNCTION 1965-66

($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Development of resources and assistance to industry—							
Brigalow lands development	..	..	1,600	..	..	..	1,600
Less Repayments	..	..	..	..	..	..	..
	..	..	*1,600*	..	..	..	*1,600*
Blowering Reservoir	5,581	..	..	..	..	..	5,581
Less Repayments	..	..	..	..	..	..	..
	5,581	..	..	..	..	..	*5,581*
Drought assistance	8,668	..	3,326	..	..	..	11,994
Less Repayments	..	..	..	..	..	..	..
	8,668	..	*3,326*	..	..	..	*11,994*
Comprehensive water supply	..	..	..	..	1,250	..	1,250
Less Repayments	..	..	..	..	..	..	..
	..	..	..	..	*1,250*	..	*1,250*
Chowilla Reservoir	472	..	..	..	..	..	472
Less Repayments	..	..	..	..	..	..	..
	472	..	..	..	..	..	*472*
Agricultural re-establishment loans	..	..	..	..	..	..	..
Less Repayments	77	30	3	22	47	16	195
	−77	*−30*	*−3*	*−22*	*−47*	*−16*	*−195*
War service land settlement	..	..	..	2,129	2,673	1,555	6,358
Less Repayments	110	117	4	2,519	7,554	5,907	16,210
	−110	*−117*	*−4*	*−390*	*−4,881*	*−4,352*	*−9,852*
Transport and communication—							
Railway projects	..	..	..	1,923	10,487	..	12,410
Less Repayments	96	96	1,009	108	78	..	1,387
	−96	*−96*	*−1,009*	*1,815*	*10,409*	..	*11,023*
Cattle roads	..	..	2,000	..	..	..	2,000
Less Repayments	..	..	..	..	..	..	..
	..	..	*2,000*	..	..	..	*2,000*
Western Australia—northern development	..	..	..	..	577	..	577
Less Repayments	..	..	..	..	..	..	..
	..	..	..	..	*577*	..	*577*
Replacement of Derby jetty	..	..	..	..	..	..	..
Less Repayments	..	..	..	..	53	..	53
	..	..	..	..	*−53*	..	*−53*
Coal loading works	813	..	..	..	..	..	813
Less Repayments	249	..	13	..	..	..	262
	564	..	*−13*	..	..	..	*551*
Harbours	..	..	2,717	..	..	..	2,717
Less Repayments	..	..	..	..	..	..	..
	..	..	*2,717*	..	..	..	*2,717*
Housing	,375	33,567	8,950	21,057	8,846	7,448	124,242
Less Repayments	3,599	3,355	991	1,063	935	294	10,237
	40,776	*30,211*	*7,959*	*19.994*	*7,911*	*7,154*	*114,005*
Not allocated to function—							
Other	606	887	386	344	206	171	2,600
Less Repayments	..	..	..	..	..	..	..
	606	*887*	*386*	*344*	*206*	*171*	*2,600*
Total gross advances	60,515	34,454	18,979	25,453	24,039	9,174	172,615
Less Repayments	4,131	3,598	2,020	3,712	8,667	6,217	28,344
Total net advances	**56,384**	**30,855**	**16,959**	**21,741**	**15,372**	**2,957**	**144,271**

Minus sign (−) denotes excess of repayment.

ALL COMMONWEALTH FUNDS: TOTAL ADVANCES TO THE STATES BY FUNCTION, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Development of resources and assistance to industry—					
Brigalow lands development . .	..	1,200	1,600	1,400	1,600
Less Repayments	..	..	..	..	..
	..	*1,200*	*1,600*	*1,400*	*1,600*
Blowering Reservoir	..	..	840	3,492	5,581
Less Repayments . . .	..	..	..	..	..
	..	..	*840*	*3,492*	*5,581*
Drought assistance	..	..	..	..	11,994
Less Repayments . . .	..	..	..	..	..
	..	..	..	..	*11,994*
Comprehensive water supply .	..	..	..	..	1,250
Less Repayments . . .	..	..	..	..	..
	..	..	..	..	*1,250*
Western Australia—northern development	..	..	350	550	..
Less Repayments . . .	..	..	..	..	..
	..	..	*350*	*550*	..
Chowilla Reservoir	..	..	100	156	472
Less Repayments . . .	..	..	..	..	..
	..	..	*100*	*156*	*472*
Agricultural re-establishment loans .	..	..	..	..	..
Less Repayments	312	300	248	228	195
	−312	*−300*	*−248*	*−228*	*−195*
War service land settlement . .	12,702	10,948	8,524	7,234	6,358
Less Repayments	10,102	10,206	11,118	11,362	16,210
	2,600	*742*	*−2,594*	*−4,128*	*−9,852*
Transport and communication—					
Railway projects	9,900	16,142	17,420	10,388	12,410
Less Repayments	180	228	276	824	1,387
	9,720	*15,914*	*17,144*	*9,564*	*11,023*
Cattle roads	..	..	1,998	2,300	2,000
Less Repayments	..	..	..	..	..
	..	..	*1,998*	*2,300*	*2,000*
Western Australia—northern development	..	..	..	..	577
Less Repayments	..	..	..	..	..
	..	..	..	..	*577*
Replacement of Derby jetty . .	..	300	350	150	..
Less Repayments	..	..	..	54	53
	..	*300*	*350*	*96*	*−53*
Coal loading works	568	996	196	926	813
Less Repayments	..	56	156	176	262
	568	*940*	*40*	*750*	*551*

Minus sign (−) denotes excess of repayments.

ALL COMMONWEALTH FUNDS: TOTAL ADVANCES TO THE STATES BY FUNCTION, 1961–62 TO 1965–66—*continued*

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Harbours	..	..	..	..	2,717
Less Repayments	..	..	..	..	..
	..	..	..	..	*2,717*
Housing	103,486	100,124	104,264	115,116	124,242
Less Repayments	7,112	7,466	8,298	9,248	10,237
	96,374	*92,658*	*95,966*	*105,868*	*114,005*
Not allocated to function	..	..	..	762	2,600
Less Repayments	116	2,594	880	..	..
	−116	*−2,594*	*−880*	*762*	*2,600*
Total gross advances	126,656	129,710	135,642	142,474	172,615
Less Repayments	17,822	20,850	20,976	21,892	28,344
Total net advances	**108,834**	**108,860**	**114,666**	**120,582**	**144,271**

Minus sign (−) denotes excess of repayments.

ALL COMMONWEALTH FUNDS: GROSS ADVANCES TO THE STATES TO 30 JUNE 1966

($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Development of resources and assistance to industry—							
Brigalow lands development	..	..	5,800	..	..	..	5,800
Blowering Reservoir	9,913	..	..	..	..	..	9,913
Drought assistance	8,668	..	3,326	..	..	..	11,994
Comprehensive water supply	..	..	..	..	1,250	..	1,250
Western Australia—northern development	..	..	..	..	900	..	900
Chowilla Reservoir	728	..	..	..	..	..	728
Agricultural re-establishment loans	5,320	2,080	1,220	928	2,222	600	12,370
War service land settlement	13,542	14,398	..	64,235	97,524	50,820	240,498
Transport and communication—							
Railway projects	104	9,480	34,534	7,903	23,495	..	75,516
Cattle roads	..	..	6,298	..	..	..	6,298
Western Australia—northern development	..	..	..	..	577	..	577
Replacement of Derby jetty	..	..	..	..	800	..	800
Coal loading works	3,299	..	200	..	..	..	3,499
Harbours	..	..	2,717	..	..	..	2,717
Housing	486,095	427,277	126,791	169,429	122.608	57,051	1,389,249
Not allocated to function	2,187	1,985	1,050	980	679	501	7,383
Total	**529,856**	**455,219**	**181,936**	**243,475**	**250,055**	**108,971**	**1,769,492**

The figures in the table above represent gross advances, and take no account of repayments made by the States.

Contributions under Financial Agreement. Details of the Financial Agreement between the Commonwealth and the States are given in Year Book No. 37, pages 685–90. Under this Agreement the Commonwealth undertook to contribute $15,169,824 per annum towards interest payable on the State loan securities for a period of 58 years from 1 July 1927. This amount is distributed among the States as follows: New South Wales, $5,834,822; Victoria, $4,254,318; Queensland, $2,192,470; South Australia, $1,407,632; Western Australia, $946,864; Tasmania, $533,718. These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926–27 at the rate of $2.50 per head of population, the rate at which the Commonwealth had contributed annually to the States since 1 July 1910 as compensation for the States relinquishing, after federation, the right to levy customs and excise duties.

In addition, under the Financial Agreement the Commonwealth agreed to make certain contributions to the National Debt Sinking Fund for redemption of State loan securities. Details of these are given on pages 822–3 of this chapter.

Special grants to the States. The Constitution provides in Section 96 for the granting of special financial assistance to the States. The Commonwealth Grants Commission inquires into and reports upon claims made by any State for a grant of financial assistance and any matters relevant thereto. The recommendations of the Commission in respect of the years 1962–63 to 1966–67 are shown in their two parts in the following table. One part is the Commission's estimate of the indispensable need of the claimant State for the year in which the payment is to be made after allowing a sufficient margin for safety. The other part is an adjustment of this estimate for an earlier year after an examination of the audited accounts for that year. Thus the grants for 1966–67 include an estimate of the indispensable need of the claimant State for 1966–67 and an adjustment to the estimated grant for 1964–65.

COMMONWEALTH GRANTS COMMISSION: GRANTS RECOMMENDED 1962-63 TO 1966-67

($'000)

	1962–63	1963–64	1964–65	1965–66	1966–67
Western Australia—					
Advance grant	11,800	11,800	15,800	21,000	14,700
Completion grant(*a*)	620	344	1,320	3,038	4,706
Net grant recommended	*12,420*	*12,144*	*17,120*	*24,038*	*19,406*
Tasmania—					
Advance grant	9,800	10,200	13,618	16,400	19,500
Completion grant(*a*)	282	556	982	1,332	1,166
Net grant recommended	*10,082*	*10,756*	*14,600*	*17,732*	*20,666*
Grand total	**22,502**	**22,900**	**31,720**	**41,770**	**40,072**

(*a*) Adjustment to estimated grant paid two years previously.

Financial assistance grants. Under the provisions of the *States Grants Act* 1965–1966, the financial assistance grant paid to each State was determined by increasing the grant paid to that State in 1964–65 (with the addition of $2,000,000 to the grant paid to Queensland in that year) in accordance with a formula using estimated movements in the population of that State between 31 December 1964 and 31 December 1965, the increase in average wages for Australia as a whole between 1963–64 and 1964–65, and a betterment factor of 1.2 per cent.

Drought assistance. Under the States Grants (Drought Assistance) Acts, New South Wales and Queensland were given Commonwealth financial assistance in respect of the total cost of such measures as each State deemed necessary to relieve the effects of drought. In addition, the Commonwealth is providing special financial assistance to those States to meet budgetary problems arising from the effects of drought on their revenues.

Grants for road construction. Details of the *Main Roads Development Act* 1923–1925, *Federal Aid Roads Acts* 1926, 1931 *and* 1936, *Federal Aid Roads and Works Act* 1937, *Commonwealth Aid Roads and Works Act* 1947–1949, *Commonwealth Aid Roads Act* 1950, *Commonwealth Aid Roads Act* 1954, *Commonwealth Aid Roads* (*Special Assistance*) *Act* 1957, and *Commonwealth Aid Roads Act* 1959 are given in earlier issues of the Year Book (*see* No. 38, pages 787–8, No. 41, page 621, No. 46, page 838, and No. 51, page 922) and in the annual bulletin *Commonwealth Finance*. A new scheme of Commonwealth assistance to the States for roads was established by the *Commonwealth Aid Roads Act* 1964. Under this Act, which is to operate for a period of five years from 1 July 1964, the Commonwealth has undertaken to make available up to $750,000,000 to the States for the construction, reconstruction, maintenance and repair of roads. Of this amount, a total of $660,000,000 will be paid to the States as basic grants for roads over five years. The basic grants are fixed annual amounts which rise progressively by $4,000,000 a year from $124,000,000 in 1964–65 to $140,000,000 in 1968–69. In each year the grants will be distributed between the States on the basis of 5 per cent of the total to Tasmania and the balance shared between the other five States, one-third in proportion to their respective populations at the date of the last preceding Census, one-third in proportion to their respective areas, and one-third in proportion to the respective number of motor vehicles registered in these States at 31 December preceding the year of payment. The balance of up to $90,000,000 over the five years will be made available to the States as matching assistance for roads. The total amount of matching assistance increases by $6,000,000 a year from $6,000,000 in 1964–65 to $30,000,000 in 1968–69.

Reimbursement under Tuberculosis Act 1948. The *Tuberculosis Act* 1948 provided for the reimbursement by the Commonwealth of capital and maintenance expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis. Re-imbursements from the National Welfare Fund of maintenance expenditure on tuberculosis hospitals are classified as cash benefits under Health and Welfare expenditure, and they equal the amounts by which such expenditures of the States in any financial year exceed those for the year 1947–48. As from 1 July 1948 the States have also been reimbursed from annual appropriations of the Department of Health for all their capital expenditure on buildings, furnishings, equipment, and plant.

The *States Grants* (*Mental Health Institutions*) *Act* 1964 authorised assistance to the States amounting to one-third of their total expenditure on building and equipping approved mental health institutions during the three years ending 30 June 1967.

Education. Payments to the States for universities were first introduced in 1951–52, and details of the States Grants (Universities) Acts under which they were continued are given in earlier issues of the Year Book (*see* No. 51 page 923 and No. 52 page 770). The *Universities* (*Financial Assistance*) *Act* 1966 authorised grants totalling approximately $175 million for the Commonwealth share of the agreed programme of development of State Universities for the years 1967 to 1969. (*See also* the chapter Education, Cultural Activities, and Research, pages 613–17.)

Colleges of Advanced Education. Under the States Grants (Advanced Education) Acts, the Commonwealth is providing financial assistance to the States for recurrent and capital expenditures of Colleges of Advanced Education.

The *States Grants* (*Science Laboratories and Technical Training*) *Act* 1964 and the *States Grants* (*Science Laboratories*) *Act* 1965–1966 provide for grants during 1964–65 to 1967–68 inclusive for improving science teaching in both government and non-government secondary schools.

Grants for buildings and equipment for use in technical training in schools and colleges conducted by States only are provided for under the *State Grants* (*Science Laboratories and Technical Training*) *Act* 1964 and the *States Grants* (*Technical Training*) *Act* 1965–1966.

Under the *States Grants* (*Research*) *Act* 1965 the Commonwealth made available $2,000,000 to support research projects, selected on the basis of relative merit, being carried out in any academic field by individuals or research teams during 1964–65 and 1965–66.

Railway projects. Under the *Railway Standardization* (*South Australia*) *Agreement Act* 1949 the Commonwealth provided funds for the conversion of lines in the south-eastern division of the State as an initial step towards eventual standardisation to 4′ 8½″ gauge. The State is to repay three-tenths of the cost of this work over a period of fifty years and is to bear the full cost of subsequent conversion from broad to standard gauge. Similar conditions apply to expenditures under the *Railway Equipment Agreement* (*South Australia*) *Act* 1961. Under the *Railway Standardization* (*New South Wales and Victoria*) *Agreement Act* 1958 the Commonwealth provided funds for the construction of the standard gauge rail link between Albury and Melbourne on the basis that the States of Victoria and New South Wales will each bear fifteen per cent of the cost by instalments over a period of fifty years.

The total expenditure on railway standardisation (the thirty per cent advances to the States and the seventy per cent grants to the States) is charged to the capital works and services vote of the Department of Shipping and Transport. Under the *Railway Agreement* (*Western Australia*) *Act* 1961 the Commonwealth is providing financial assistance for the construction of a standard gauge railway from Kwinana to iron ore deposits at Koolyanobbing and to Kalgoorlie.

Cattle roads grants. The *Queensland Beef Cattle Roads Agreement Act* 1966 increased the limit of financial assistance available for beef roads in Queensland from $16.6 million to $20.5 million. Under the Western Australia Grant (Beef Cattle Roads) Acts special grants were made to Western Australia for certain beef cattle road works in the north of the State.

Western Australia—northern development. The *Western Australia* (*Northern Development*) *Agreement Act* 1963 provided for financial assistance of $7,000,000 to Western Australia for development of approved projects during the three years 1963–64 to 1965–66.

Brigalow lands. Under the Brigalow Lands Agreement Acts Commonwealth advances to the State of Queensland for specified works associated with the production of beef cattle and other primary products in the Fitzroy River Basin and the supply of beef for export are fixed at an overall limit of $23,000,000. Repayments over a twenty-year period are to commence in 1968 in respect of advances made prior to 1 July 1967 and in 1971 in respect of advances made from 1 July 1967.

Flood mitigation, New South Wales. Commonwealth payments under the *New South Wales Grant* (*Flood Mitigation*) *Act* 1964–1966 are limited to $5,500,000 in respect of flood mitigation works on the Macleay, Clarence, Richmond, Tweed, Shoalhaven, and Hunter Rivers. The Commonwealth grants will match State expenditure which, in turn, will be in a prescribed ratio to local authority expenditure on flood mitigation works.

Blowering Reservoir, New South Wales. The Blowering Reservoir is to be constructed at the expense of the State of New South Wales mainly by the Snowy Mountains Hydro-electric Authority, and the Commonwealth will finance half the cost in the form of repayable interest-bearing loans to that State.

Chowilla Reservoir, New South Wales. The Chowilla Reservoir is to be constructed as an approved work under the River Murray Waters Agreement, and the Commonwealth advances to New South Wales are to assist in the financing of that State's one-quarter contribution of the cost of construction.

Water resources investigations. Under the *States Grants (Water Resources) Act* 1964 the Commonwealth is authorised to grant financial assistance to the States for the purpose of accelerating the States' programmes of measuring the discharge of rivers and investigating underground water resources. Grants to each State are related to that State's capital expenditure and the operational expenditure it incurs in carrying out its measurement and investigation programmes.

Development of Exmouth township, Western Australia. In 1965–66 the Commonwealth contributed an amount of $750,000 to the Western Australian Government towards the cost of developing a township at Exmouth in connection with the United States Communications Base being established at North West Cape.

Weipa development, Queensland. Under the *Weipa Development Agreement Act* 1965 the Commonwealth is providing financial assistance of up to $3,270,000 to Queensland by way of interest-bearing advances to finance harbour works to be carried out at Weipa on Cape York Peninsula.

War service land settlement

The following section deals with the financial operations of the War Service Land Settlement Division of the Department of Primary Industry. This information was previously included in the chapter Land Settlement and Tenure, (*see* Year Book No. 52, page 80). Additional information concerning the operations of the Division appears in Chapter 22, Rural Industry.

WAR SERVICE LAND SETTLEMENT: COMMONWEALTH EXPENDITURE, STATES TO 30 JUNE 1966

($'000)

Advances to States	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
For acquisition of land . .	..	..	..	6,836	7,092	5,060	18,988
For development and improvement of land	..	..	..	29,909	39,532	34,340	103,781
Special loans	13,542	14,398	..	..	..	..	27,940
Commonwealth contributions to excess cost over valuation .	1,277	12,824	232	4,466	4,406	3,358	26,563
To provide credit facilities to settlers	..	..	..	28,977	50,821	11,877	91,675
For remission of settlers' rent and interest	870	378	72	641	1,062	438	3,461
For payment of living allowances to settlers	2,020	2,434	326	845	960	380	6,965
For operation and maintenance of irrigation projects . . .	..	..	..	2,473	32	9	2,514
Loss on advances . . .	457	14	652	107	368	114	1,712
Cost of administration of credit facilities	..	..	..	1,285	1,967	552	3,804
Concessions and rebates for King Island	..	..	..	..	..	356	356
Total	**18,166**	**30,048**	**1,282**	**75,539**	**106,240**	**56,484**	**287,759**

Loans and Allowances (Agricultural Occupations) Scheme

Full details of the measures taken for the re-establishment of ex-servicemen in rural occupations were given in earlier Year Books (*see* List of Special Articles, etc., preceding General Index to this volume). These measures provide for a scheme of loans and allowances to assist ex-servicemen in establishing themselves in agricultural occupations. The loans are made to eligible ex-servicemen for the purchase of land, effecting improvements on land, the acquisition of tools of trade, livestock, plant or equipment, the establishment of a co-operative business with other persons, reduction or discharge of a mortgage, bill of sale, etc. At 30 June 1966, 14,307 loans had been approved, and advances amounting to $20,356,000 had been made. The allowances are payable only in respect of the period during which the income derived from the occupation by the ex-serviceman concerned is considered inadequate. At 30 June 1966, 16,114 applications for allowances had been made, and the total amount paid in allowances was $4,553,000.

Year Book No. 48 (page 98) contains details of the applications received and approved and the amounts involved for the individual States and Territories to 30 June 1961. There has been little subsequent change.

War Service Land Settlement Branch—total expenditure

The following table shows the total expenditure on various projects by the War Service Land Settlement Branch to 30 June 1966.

COMMONWEALTH WAR SERVICE LAND SETTLEMENT BRANCH: EXPENDITURE STATES AND TERRITORIES TO 30 JUNE 1966

($'000)

Project	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total expenditure	Receipts and repayments	Net expenditure
War Service Land Settlement expenditure from revenue or loan funds	18,166	30,048	1,282	75,539	106,240	56,484	287,759	(*a*)97,565	190,184
Agricultural loans(*b*) .	8,568	3,594	1,748	1,654	3,947	811	(*c*)20,356	(*d*)19,226	1,130
Agricultural allowances .	1,160	592	956	650	962	232	(*e*) 4,553	..	4,553
Administration expenses	1,615	344	141	196	807	97	3,201	..	3,201
Rural training . .	660	1,008	212	380	454	216	2,930	298	2,632
Total . . .	**30,169**	**35,586**	**4,339**	**78,419**	**112,410**	**57,840**	***f*** **318,799**	***g*** **117,089**	**201,700**

(*a*) Excludes interest, rent and rates, $25,694,000. (*b*) Includes expenditure on new loans of moneys repaid by borrowers. (*c*) Includes Northern Territory, $20,000, and New Guinea, $14,000. (*d*) Excludes interest, $3,014,000. (*e*) Includes New Guinea, $2,000. (*f*) Includes Northern Territory, $20,000, and New Guinea, $16,000. (*g*) Excludes interest, rent and rates, $28,708,000.

All Commonwealth funds: receipts

Commonwealth taxation

Taxation constitutes the main sources of Commonwealth revenue, accounting for 93.4 per cent in 1965–66. The following tables show details of taxation receipts from each source during the years 1961–62 to 1965–66 and their proportions of the totals.

ALL COMMONWEALTH FUNDS: TAXATION RECEIPTS, 1961-62 TO 1965-66

($'000)

Source of receipts	1961–62	1962–63	1963–64	1964–65	1965–66
Income tax—					
Individuals	1,073,772	1,082,622	1,271,063	1,569,483	1,729,439
Companies	565,376	519,828	586,260	709,044	801,105
Dividend (withholding) . .	16,233	17,929	15,936	16,039	17,247
Customs	170,244	210,136	232,497	268,400	270,871
Excise	531,291	548,803	582,464	631,242	751,960
Sales tax	297,648	313,062	325,189	362,857	370,044
Pay-roll tax	121,943	126,510	136,443	150,078	161,943
Estate duty	34,058	35,699	39,871	41,531	36,124
Gift duty	5,594	6,328	6,488	7,308	6,195
Primary production and other charges	2,854	3,643	4,007	4,808	13,041
Stevedoring industry charge .	6,865	8,985	10,321	10,411	9,531
Wheat tax	468	595	638	720	591
Wool tax	5,708	5,911	6,359	13,987	15,201
Broadcasting stations' licence fees	195	214	235	226	218
Television stations' licence fees .	183	181	232	28	1,620
Territories—					
Australian Capital Territory .	692	758	898	1,122	973
Northern Territory . .	214	212	440	482	537
Other	2,150	924	800	658	1,708
Total	**2,835,487**	**2,882,342**	**3,220,140**	**3,788,423**	**4,188,348**

COMMONWEALTH TAXATION: PROPORTION OF EACH CLASS TO TOTAL NET COLLECTIONS, 1961-62 TO 1965-66

(Per cent)

Type of tax	1961–62	1962–63	1963–64	1964–65	1965–66
Income taxes	58.4	56.2	58.2	60.5	60.8
Customs	6.0	7.3	7.2	7.1	6.5
Excise	18.7	19.0	18.1	16.6	18.0
Sales tax	10.5	10.9	10.1	9.6	8.8
Pay-roll tax	4.3	4.4	4.2	4.0	3.9
Estate duty	1.2	1.2	1.2	1.1	0.9
Gift duty	0.2	0.2	0.2	0.2	0.1
Primary production and other charges	0.1	0.1	0.1	0.1	0.3
Stevedoring industry charge	0.2	0.3	0.3	0.3	0.2
Wool tax	0.2	0.2	0.2	0.4	0.4
Other	0.2	0.2	0.2	0.1	0.1
Total taxation	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Customs and excise receipts

COMMONWEALTH CUSTOMS REVENUE: CLASSIFICATION OF NET RECEIPTS, 1961–62 TO 1964–65

($'000)

Class	1961–62	1962–63	1963–64	1964–65
Foodstuffs of animal origin	1,030	1,198	1,464	1,564
Foodstuffs of vegetable origin	4,126	4,159	4,909	3,210
Spirituous and alcoholic liquors	11,693	10,956	12,670	14,709
Tobacco, cigars and cigarettes	23,995	25,517	26,401	27,596
Animal substances (not foodstuffs)	10	10	12	13
Vegetable substances and fibres	493	641	599	630
Yarns, textiles and apparel	25,725	29,888	33,582	39,400
Oils, fats and waxes	18,298	22,733	21,696	20,718
Pigments, paints and varnishes	568	810	765	759
Rocks and minerals	124	226	236	17
Metals, metal manufactures and machinery	41,671	65,013	74,074	91,644
Rubber and leather and manufactures thereof	1,676	2,634	3,502	5,502
Wood and wicker, raw and manufactured	3,028	3,247	4,379	6,393
Earthenware, cement, china, glass, and stoneware	5,347	5,903	5,954	6,742
Pulp, paper and board, paper manufactures, and stationery	4,808	5,556	5,608	6,476
Sporting materials, toys, fancy goods, jewellery, and timepieces	6,474	7,201	7,515	8,853
Optical, surgical and scientific instruments, photographic goods	3,184	3,354	3,836	4,769
Chemicals, pharmaceutical products, essential oils, and fertilisers	4,261	4,441	6,066	6,228
Miscellaneous goods	9,524	12,136	13,904	16,905
Primage	3,681	4,304	4,638	5,465
Other receipts	606	275	764	887
All classes	170,321	210,202	232,572	268,480
Less remission of duty under special circumstances	77	66	75	80
Total	**170,244**	**210,136**	**232,497**	**268,400**

CUSTOMS DUTIES ACCORDING TO BRUSSELS TARIFF DIVISIONS(*a*)

1965–66

($'000)

Source of receipts	1965–66
Live animals; animal products	1,155
Vegetable products	1,755
Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes	1,923
Prepared foodstuffs; beverages, spirits and vinegar; tobacco	43,656
Mineral products	19,394
Products of the chemical industry and allied industries	10,420
Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof; rubber, synthetic rubbers, factice, and articles thereof	11,781
Raw hides and skins, leather, fur skins, and articles thereof; saddlery and harness; travel goods, handbags and similar containers; articles of gut (other than silk-worm gut)	1,962
Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto and of other plaiting materials; basketware and wickerwork	6,627
Paper-making material; paper and paper-board, and articles thereof	6,838
Textiles and textile articles	34,952
Footwear, headgear, umbrellas, sunshades, whips, riding-crops, and parts therefor; prepared feathers and articles made therewith; artificial flowers; articles of human hair; fans	3,193
Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products; glass and glassware	7,272
Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin	1,187
Base metals and articles of base metal	18,606
Machinery and mechanical appliances; electrical equipment; parts therefor	47,052
Vehicles, aircraft, and parts therefor; vessels and certain associated transport equipment	25,575
Optical, photographic, cinematographic, measuring, checking, precision, medical and surgical instruments and apparatus; clocks and watches, musical instruments; sound recorders and reproducers; television image and sound recorders and reproducers, magnetic; parts therefor	8,880
Arms and ammunition; parts therefor	466
Miscellaneous manufactured articles	8,537
Works of art, collectors' pieces, and antiques	−5
Miscellaneous	4,366
Primage	5,420
Total, customs duties and primage	271,010
Less remission of duty under special circumstances	139
Total	270,871

(*a*) Following the adoption as from 1 July 1965 of the Brussels Tariff Nomenclature in the new Australian Customs Tariff, the source of customs duties is shown under the heads of the sections of Customs Tariff. In earlier years, collections of customs duties were shown by statistical classes—*see* preceding table.

COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Beer	227,008	234,525	247,169	260,214	302,104
Spirits	16,836	17,164	18,306	19,207	22,871
Tobacco	23,795	21,082	18,710	17,795	18,070
Cigars and cigarettes	134,976	140,372	146,199	171,073	199,740
Cigarette papers	1,281	1,141	1,013	901	858
Petrol	115,809	122,029	135,974	148,194	190,670
Diesel fuel	4,506	5,152	7,665	9,099	13,597
Matches	2,189	2,253	2,288	2,276	2,267
Playing cards	105	98	104	106	114
Coal	581	560	585	599	621
Cathode ray tubes	4,113	4,212	3,911	605	..
Canned fruit	..	..	402	1,092	1,092
Miscellaneous	85	103	42	1	−68
All items	531,284	548,692	582,369	631,162	751,936
Diesel fuel taxation	265	323	319	309	265
Less rebates	258	211	224	229	241
	8	111	95	80	24
Total	531,291	548,803	582,464	631,242	751,960

Primary production and other charges

COMMONWEALTH PRIMARY PRODUCTION AND OTHER CHARGES: RECEIPTS 1961-62 TO 1965-66

($'000)

Source of revenue	1961–62	1962–63	1963–64	1964–65	1965–66
Apple and pear export charge	218	198	251	213	272
Butter fat levy	..	..	..	..	1,812
Canned fruit export charge	131	138	183	176	223
Canning fruit charge	91	142	61	102	120
Cattle slaughter levy	420	813	879	298	..
Dairy produce export charge	205	437	527	674	5
Dairy produce levy	779	791	793	817	31
Dried fruits export charge	104	85	118	155	193
Dried vine fruits contributory charge—					
Currants	..	..	..	..	72
Raisins	..	..	..	..	165
Sultanas	..	..	..	..	1,530
Egg export charge	66	35	56	82	20
Honey levy	..	7	81	104	101
Livestock slaughter levy—					
Cattle	..	..	..	1,157	1,441
Sheep and lambs	..	..	..	299	399
Meat export charge	286	438	486	103	..
Poultry industry levy	..	..	..	..	6,000
Tobacco charge	329	239	348	354	369
Wine export charge	225	320	224	274	288
Total	2,854	3,643	4,007	4,808	13,041

Other Commonwealth taxation

Taxes other than customs and excise duties, the various export charges and some taxes on particular commodities are assessed and collected by the Commissioner of Taxation. The Commissioner's organisation comprises a head office in Canberra, an office in each State assessing the returns of taxpayers whose interests are restricted to that State, and a central office situated in Melbourne assessing taxpayers whose interests are in the Australian Capital Territory or are in more than one State.

Details of the purposes and rates applicable to the main forms of Commonwealth taxation, excluding customs and excise, currently imposed and of current legislation are given in the following pages. Historical information is given in Year Book No. 51, pages 905–10, and in earlier issues. Taxes on income are treated separately on pages 823–34, and customs and excise duties are dealt with in the chapter Overseas Transactions. For detailed statistics relating to Commonwealth income taxes, estate duty, gift duty, and sales tax *see* the annual bulletin *Commonwealth Taxation Assessments.*

Sales tax. The general rate of tax levied on all goods other than those specified in the schedules to the *Sales Tax (Exemptions and Classifications) Act* 1935–1966 was 12½ per cent, and goods subject to special rates were taxed at the rates of 2½ and 25 per cent.

Particulars of the net amount of sales tax payable and the sales of taxable and exempt goods in each State for 1965–66 are given in the following table. The figures relate to sales during the period 1 July to 30 June. The figures for sales tax payable differ from those for net collections shown on page 776 because the latter include some adjustments in respect of earlier tax years and relate to tax payable on returns lodged during the year, which in general cover sales for the period June to May.

COMMONWEALTH SALES TAX AND AMOUNT OF SALES STATES AND TERRITORIES, 1965-66

($'000)

	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Net sales on which sales tax was payable at—								
2½ per cent	197,280	180,494	60,605	42,038	30,891	10,321	221	521,849
12½ per cent	598,101	407,125	173,944	113,804	94,936	25,064	2,179	1,415,154
25 per cent	277,873	214,083	89,382	65,273	47,769	12,875	503	707,759
Total net sales	*1,073,254*	*801,702*	*323,931*	*221,115*	*173,597*	*48,259*	*2,904*	*2,644,762*
Sales of exempt goods by registered persons	2,860,831	2,018,824	928,101	570,169	514,305	206,189	13,374	7,111,792
Total sales of taxable and exempt goods	3,934,086	2,820,526	1,252,032	791,284	687,902	254,448	16,278	9,756,555
Sales tax payable	149,163	108,924	45,604	31,595	24,582	6,610	404	366,880

(*a*) Includes Australian Capital Territory.

Sales of taxable and exempt goods and sales tax payable for Australia as a whole are shown in the following table for the years 1961–62 to 1965–66.

COMMONWEALTH SALES TAX AND AMOUNT OF SALES AUSTRALIA, 1961-62 TO 1965-66

($ million)

Year of sale	Net sales on which sales tax was payable	Sales of exempt goods by registered persons	Total sales of taxable and exempt goods	Sales tax payable
1961–62	2,100	4,832	6,931	297
1962–63	2,303	5,254	7,557	314
1963–64	2,393	6,116	8,509	329
1964–65	2,589	6.819	9,408	365
1965–66	2.645	7,112	9,757	367

In the foregoing tables sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the *Sales Tax (Exemptions and Classifications) Act* 1935–1966. The figures shown do not represent the total sales of all commodities, as vendors trading only in exempt goods are not required to be registered, and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e. goods sold by one registered taxpayer to another registered taxpayer) are excluded.

Pay-roll tax came into operation on 2 May 1941 and the relevant laws are *Pay-roll Tax Assessment Act* 1941–1966, *Pay-roll Tax Act* 1941, and Pay-roll Tax Regulations. From 1 September 1957 pay-roll tax of 2½ per cent (rate unchanged since its inception) was payable by employers on all wages and salaries in excess of $400 a week or $20,800 per annum. Employers whose export sales have increased above the annual average of export sales effected during a base period of two years ended 30 June 1960 are entitled under the Commonwealth Government's export incentive scheme to a rebate of pay-roll tax of twelve and one-half times the percentage increase in export sales.

Estate duty. Under the *Estate Duty Assessment Act* 1914–1966 estate duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula, applying from 31 October 1963: (*a*) where the whole of the estate passes to the widow or widower, children (including adopted children, step-children and ex-nuptial children), or grand-children of the deceased, the sum of $20,000 decreasing by $2 for every $8 by which the value exceeds $20,000 and ceasing to apply at $100,000; (*b*) where no part of the estate passes to the widow or widower, children or grand-children, the sum of $10,000 decreasing by $2 for every $8 by which the value exceeds $10,000 and ceasing to apply at $50,000; and (*c*) where only part of the estate passes to the widow or widower, children or grand-children, the statutory exemption is to be calculated proportionately under (*a*) and (*b*). Special exemptions are also allowed in respect of estates of defence personnel who die on active service or within three years of termination of their active service, from injuries received or diseases contracted while on active service. Rebates of duty are provided on estates which become liable for duty on two or more occasions within a period of five years.

The rates of duty levied under the *Estate Duty Act* 1914–1941 increase as the value of the estate for duty increases, as follows: does not exceed $20,000, 3 per cent; $20,001 to $40,000, 3 per cent to 6 per cent; $40,001 to $240,000, 6 per cent to 26 per cent; $240,001 to $1,000,000, 26 per cent to 27.9 per cent; $1,000,001 and over, 27.9 per cent.

Particulars of the number and value of estates and duty assessed, for each of the assessment years 1961–62 to 1965–66, are given in the following table.

COMMONWEALTH ESTATE DUTY ASSESSMENTS, 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Estates . . .	no.	16,449	16,634	17,658	12,423	10,948
Gross value assessed	$'000	558.764	588,306	633,552	602,216	587,488
Deductions .	$'000	95,450	106,732	115,002	116,821	117,304
Statutory exemption	$'000	74,360	74,510	81,836	92,641	109,468
Dutiable value .	$'000	388,954	407,064	436,714	392,754	360,715
Net duty payable	$'000	34,328	37,988	39,840	40,935	38,410
Average dutiable value	$	23,646	24,472	24,732	31,615	32,948
Average duty per estate	$	2,086	2,284	2,256	3,295	3,508

Gift duty. The *Gift Duty Act* 1941–1966 and the *Gift Duty Assessment Act* 1941–1966 impose a gift duty on gifts made after 29 October 1941. A gift is defined as any disposition of property which is made otherwise than by will, without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty. However, if a return is furnished by the donor, the donee is relieved of this obligation.

Where the value of the gift together with the total value of gifts made by the donor during the preceding eighteen months does not exceed $3,000, no return is necessary.

The rate of gift duty applicable to any particular gift is fixed by reference to the total value of all gifts made by the same donor within the period of eighteen months before and eighteen months after the time of making that gift. The present rates of duty are: not exceeding $4,000, nil; $4,001 to $20,000, 3 per cent provided that the gift duty payable shall not exceed half the amount by which the gift exceeds $4,000, or a proportionate amount where more than one gift is involved; $20,001 to $40,000, 3 per cent to 6 per cent; $40,001 to $240,000, 6 per cent to 26 per cent; $240,001 to $1,000,000, 26 per cent to 27.9 per cent; $1,000,001 and over, 27.9 per cent.

Particulars of the number of gift duty assessments, value of gifts as assessed and duty assessed for each of the assessment years 1961–62 to 1965–66 are given in the following table.

COMMONWEALTH GIFT DUTY ASSESSMENTS, 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Assessments .	. no.	7,049	7,020	7,676	8.306	7,515
Value as assessed	. $'000	103,836	107,146	118,126	124,709	111,658
Duty assessed .	. $'000	5,882	6,066	6,768	6,870	5,911

Wool tax. The present rate of wool tax is 2 per cent of the sale value of the wool and this rate has operated since 1 July 1965.

Wheat export charge and wheat tax. The *Wheat Export Charge Act* 1963–1966 repealed the *Wheat Export Charge Act* 1958 and provided for an export charge on wheat and wheat products for the seasons 1963–64 to 1967–68 inclusive. The charge which may be levied is the excess of the export price over the cost of production or $0.15 per bushel, whichever is the less. Under the *Wheat Industry Stabilization Act* 1963–1965, to which the Wheat Export Charge Act is complementary, the Commonwealth Government guarantees a return to wheat-growers of the ascertained cost of production on up to 150 million bushels of wheat harvested each season exported from Australia. Collections from the wheat export charge are paid into the Wheat Price Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund. As the return from exports has been below the guaranteed price, there have been no collections of the wheat export charge since the 1956–57 (No. 20) Pool, when $3,178,000 was collected. The *Wheat Tax Act* 1957–1966 imposes a tax of three-tenths of a penny (0.25 cents) for each bushel of wheat delivered to the Wheat Board on or after 1 October 1965. (*See also* the chapter Rural Industry.)

Miscellaneous export charges. These consist of charges levied on exports of apples and pears (*Apple and Pear Export Charges Act* 1938–1966), canned fruits (*Canned Fruits Export Charges Act* 1926–1966), dried fruits (*Dried Fruits Export Charges Act* 1924–1965), and eggs (*Eggs Export Charges Act* 1947–1965).

Stevedoring Industry Charge The rate of charge between 1 April 1962 and March 1967 was 33.5 cents per man-hour. The rate was increased to 48 cents per man-hour from 8 March 1967.

Tobacco charge. The rates of tobacco charge currently in force are as follows:

(*a*) in respect of leaf sold to a manufacturer:
  (i) one half cent per pound of leaf, payable by the grower or other persons who own the leaf immediately before sale, and
  (ii) one cent per pound of leaf, payable by the manufacturer;
(*b*) in respect of leaf grown and used by grower-manufacturers:
  (i) where the manufacturer grows nine-tenths of the leaf used by him—one half cent per pound of leaf,
  (ii) in other cases—one cent per pound of leaf.

(*See also* the chapter Rural Industry.)

Dairy produce and butterfat levies. The *Butter Fat Levy Act* 1965–1966 which superseded the *Dairy Produce Levy Act* 1958 and the *Dairy Produce Export Charge Act* 1924–1962 provide for a maximum rate of $0.60 per hundredweight of butterfat content of dairy products and for the apportionment of the proceeds between overseas marketing (40 per cent), local promotion (40 per cent), and research (20 per cent) (*See also* the chapter Rural Industry.)

Canning fruit charge. The present rate of canning fruit charge is $0.75 per ton of fruit. This rate has operated since 1 December 1964.

Honey levy. The current rate of levy on honey sold for domestic consumption in Australia is four-tenths of a cent per pound.

Livestock slaughter levy. The *Livestock Slaughter Levy Act* 1964–1966 imposed a levy on all cattle (over 200 lb dressed weight), sheep and lambs slaughtered within Australia for human consumption. These levies operated from 1 August 1964 and replaced the charge imposed on meat exports and also subsumed the cattle slaughter levy for beef research purposes imposed in 1960 (*see* page 909 of Year Book No. 51). The rates of levy are not to exceed 75 cents for cattle of which a maximum of 20 cents is for beef research, and 7.5 cents for sheep or lambs, of which a maximum of 3.75 cents is for sheep or lamb research.

Dried Vine Fruits Contributory Charge. Charges in respect of 1964 season fruits were paid into the varietal stabilisation funds during 1965–66 at the following rates: currants, $6.13 a ton, sultanas $17.80 a ton, and raisins $20.00 a ton.

Poultry industry levy. The rates of levy for each hen kept for commercial purposes (the first twenty hens being exempt) was three pence and one farthing per fortnight from 1 July 1965 to 23 February 1966 and 2.8 cents per fortnight from 23 February 1966 to 13 July 1966.

Commonwealth Consolidated Revenue Fund: expenditure

Details of expenditure from Consolidated Revenue

In the following table gross expenditure from Consolidated Revenue is classified by function and economic type, the classification being consistent with that used for tables on pages 761–3. As with grants to other Commonwealth authorities, transfers to trust funds are here classified as expenditure according to the nature of the respective trust funds. Further information on the expenditure of business undertakings and the Territories, and on other particular functions is included in the chapters Transport and Communication and The Territories of Australia and in the chapters dealing with the respective activities.

COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE BY FUNCTION AND ECONOMIC TYPE, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Health and welfare—					
Advances	1,000	1,000	..	600	..
Cash benefits to persons	729,490	757,443	831,327	877,037	926,616
Current expenditure on goods and services .	22,440	26,993	29,034	32,181	35,099
Capital expenditure on goods and services .	2,258	2,375	3,081	3,489	3,681
Grants to the States	2,450	2 602	2,218	3,224	5,261
Grants towards private capital expenditure .	6,946	6.372	7,408	8,000	8,666
Total, health and welfare . . .	*764,584*	*796,785*	*873,068*	*924,531*	*979,323*
Defence—					
Current expenditure on goods and services .	408,048	427,014	474,422	568,686	753,679
Grants to overseas governments and organisations	3,154	7,584	5,414	12,210	25,678
Other	−1,776	−2,326	38,842	17,214	−37,502
Total	409,426	432,272	518,678	598,110	741,855
Less Amounts charged to loan fund . .	47,282	132,140	77,430	..	89,545
Total, defence	*362,144*	*300,132*	*441,248*	*598,110*	*652,310*
Repatriation—					
Cash benefits to persons	155,610	163,888	181,925	181,036	200,509
Current expenditure on goods and services .	44,902	50,056	55,210	58,818	63,659
Capital expenditure on goods and services .	922	996	712	1,124	1,156
Grants towards private capital expenditure .	3,118	2,342	800	2,794	5,714
Total, repatriation	*204,552*	*217,282*	*238,647*	*243,772*	*271,038*
Housing—					
Expenses of business undertakings . .	1,270	1,298	1,458	1,376	1,299
Advances—					
War Service Homes	70,000	75,000	70,000	70,000	70,000
Other	5,496	6,682	7,770	16,890	12,410
Cash benefits to persons	130	38	46	130	213
Current expenditure on goods and services .	2,342	2,602	3,056	3,842	4,172
Capital expenditure on goods and services .	9,720	10,502	9,686	12,436	15,257
Grants towards private capital expenditure .	..	..	..	11,350	13,346
Total, housing	*88,958*	*96,122*	*92,016*	*116,024*	*116,697*
Other functions—					
Expenses of business undertakings . .	273,976	261,947	286,279	314,254	345,379
Other current expenditure on goods and services	212.843	234,154	275,988	329,082	372,571
Capital expenditure on goods and services—					
Business undertakings(*a*)	104.376	137,460	151,120	177,330	201,745
Other	50,068	51,993	61,885	73,965	81,053
Subsidies	73,726	71,252	115,658	99,808	143,472
Cash benefits to persons	14,183	14,810	14,357	21,526	27,755
Grants to the States—					
Current purposes	18,110	20,396	23,106	31,258	44,478
Capital purposes	123,528	133,222	140,476	178,742	194,102
Grants to overseas governments and organisations(*b*)	61,524	64,995	81,210	94,260	101,754
Grants towards private capital expenditure .	..	..	..	4,040	19,500
Advances—					
Snowy Mountains Hydro-electric Authority	32,020	18,532	23,658	26,100	26,520
States	2,968	6,720	10,754	13,788	34,231
Overseas governments and organisations .	3,570	..	4	78	296
Other	25,728	7,974	15,430	8,272	7,549
Total, other functions	*996,620*	*1.023,455*	*1,199,925*	*1,372,503*	*1,600,405*
Not allocated to function—					
Current expenditure on goods and services .	10,896	9,178	11,104	13,912	15,750
Capital expenditure on goods and services .	11,930	12,536	11,028	13,462	12,952
Grants to the States	655,390	695,808	729,730	744,884	832,052
Advances to overseas governments and organisations	7,268	31,148	8,070	24,868	45,985
Debt charges(*c*)—					
Interest	86,214	81,084	81,260	81,868	77,392
Payment to National Debt Sinking Fund .	50,218	54,486	57,530	61,500	64,849
Loan Consolidation and Investment Reserve.	44,310	52,756	29,750	222,744	210,464
Redemption of Treasury bills	..	..	36,000	..	..
Total, not allocated	*866,226*	*936,996*	*964,472*	*1,163,238*	*1,259,444*
Grand total	**3,283.084**	**3,370,772**	**3.809,376**	**4,418,178**	**4,879,201**

(*a*) Includes expenses of undertakings in Northern Territory and Australian Capital Territory. (*b*) Includes grants to Administration of Papua and New Guinea and grants under Colombo Plan, United Nations Technical Assistance Administration, etc. (*c*) Excludes loan management expenses included in other functions.

Minus sign (−) denotes the result of differences in timing between payments for, and deliveries of, defence equipment.

More detailed information on defence expenditure, on current and capital expenditure on goods and services, and on primary production research and sales promotion, etc. is given in the following tables.

Defence services expenditure

Details of the expenditure on defence services shown in the following table cover expenditure from Consolidated Revenue and Loan Funds by the service and associated departments, including the cost of maintaining forces in overseas posts. In recent years there has been no expenditure on defence services from Trust Funds.

COMMONWEALTH CONSOLIDATED REVENUE FUND EXPENDITURE ON DEFENCE, 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Department of Defence—					
Administrative and general expenses	2,803	5,293	3,532	4,207	6,961
Buildings, works, sites, etc.	452	241	113	294	197
Maintenance and rent	65	100	112	117	202
Total, Defence	*3,320*	*5,634*	*3,757*	*4,618*	*7,359*
Department of the Navy—					
Naval forces—pay, maintenance, etc.	67,194	63,708	72,359	83,624	99,046
Naval construction and additions to the fleet	12,939	14,805	23,763	35,967	44,918
Ships, aircraft and aircraft engines	10,156	14,932	9,702	8,622	15,494
Buildings, works, sites, etc.	2,595	2,879	2,413	4,052	7,232
Maintenance and rent	2,132	2,099	2,417	2,631	3,159
Retirement benefits	790	838	1,024	1,172	1,229
Total, Navy	*95,806*	*99,261*	*111,678*	*136,069*	*171,079*
Department of the Army—					
Military forces—pay, maintenance, etc.	81,855	83,544	91,300	108,920	133,675
Special units serving abroad—maintenance	4,190	3,658	4,026	4,566	9,773
Arms, armament and equipment	33,692	36,958	48,432	61,690	67,921
Buildings, works, sites, etc.	5,263	5,482	6,551	13,856	38,693
Maintenance and rent	4,460	4,649	5,444	6,372	7,503
Retirement benefits	1,858	2,202	2,668	3,368	3,657
Total, Army	*131,318*	*136,493*	*158,421*	*198,772*	*261,223*
Department of Air—					
Air force—pay, maintenance, etc.	55,447	55,848	59,221	69,389	77,674
R.A.A.F. squadrons overseas	4,558	5,156	5,570	5,592	7,080
Aircraft, equipment and stores	57,768	61,302	101,418	91,034	111,712
Buildings, works, sites, etc.	6,532	6,144	5,616	7,598	13,336
Maintenance and rent	4,751	5,279	5,324	5,570	6,024
Retirement benefits	1,704	1,738	1,996	2,996	2,582
Total, Air	*130,760*	*135,467*	*179,145*	*182,179*	*218,408*
Department of Supply—					
Administrative and general expenses	6,046	6,825	3,746	8,912	9,566
Defence Research and Development Laboratories	5,360	7,756	9,292	10,608	10,401
Government factories—maintenance of production capacity	2,890	2,952	3,090	2,766	2,270
Transport and storage services	2,266	4,178	4,508	6,764	7,027
Weapons Research Establishment	19,020	15,256	29,012	28,320	27.725
Munitions factories—working capital	240	660	164	..	2,004
Machinery, plant equipment, etc.	3,276	4,080	4,650	4,850	7,067
Buildings, works, sites, n.e.i. etc.	2,430	2,602	2,185	2,486	3,011
Maintenance and rent	1,758	1,799	1,939	2,038	2,293
Total, Supply	*43,288*	*46,110*	*58,586*	*66,744*	*71,364*
Defence aid for Malaysia	..	..	144	3,376	5,034
Economic assistance to support defence programme of S.E.A.T.O. member countries	1,154	2,496	1,888	2,504	2,258
Security Intelligence Organization	1,322	1,410	1,716	1,920	1,990
Civil defence	444	546	642	644	724
Recruiting campaign	962	1,000	1,378	1,690	1,646
Aid to India	..	2,892	1,284	60	17
Other	1,052	963	39	−466	751
Total, Defence services	*409,426*	*432,272*	*518,678*	*598,110*	*741,855*
Less expenditure charged to Loan Fund	47,282	132,140	77,430	..	89,545
Total expenditure charged to Consolidated Revenue Fund	**362,144**	**300,132**	**441,248**	**598,110**	**652,310**

Current expenditure on goods and services

This table gives details of expenditure on items included under this general heading in the table on page 783, and in the main includes expenditure on administrative services and other activities (i.e. what might be termed 'running expenses') and therefore *excludes* expenditure on capital works (*see* table on page 786). Information on the functions of departments and the Acts administered by the Ministers of Departments may be found on pages 87–98 of Year Book No. 49.

COMMONWEALTH CONSOLIDATED REVENUE FUND: CURRENT EXPENDITURE ON GOODS AND SERVICES, 1961-62 TO 1965-66

([illegible])

	1961–62	1962–63	1963–64	1964–65	1965–66
Education—					
Australian National University	6,400	7,020	8,640	11,400	12,658
Other	4,470	5,256	6,074	7,655	8,674
Total, education	*10,869*	*12,276*	*14,714*	*19,055*	*21,332*
Health and welfare	22,440	26,993	29,034	32,181	35,099
Defence—					
Total	408,048	427,014	474,422	568,686	753.679
Less Amounts charged to Loan Fund	47,282	132,140	77,430	. .	89,545
Total, defence	*360,766*	*294,874*	*396,992*	*568,686*	*664,134*
Repatriation	44,902	50,056	55,210	58,818	63,659
Housing	2,342	2,602	3,056	3,842	4,172
Law, order and public safety—					
Crown Solicitor's Office	878	960	1,144	1,216	1,322
High Court	338	332	340	370	398
Bankruptcy administration	484	522	576	624	662
Other	3,330	3,819	4,419	5,092	5,884
Total, law, order, etc.	*5,030*	*5,633*	*6,479*	*7,302*	*8,266*
Development of resources and assistance to industry—					
Bureau of Meteorology	3,722	3,992	4,428	4,906	5,364
Forestry Branch	433	419	374	607	735
Commercial intelligence services abroad	2,032	2,376	2,726	2,996	3,313
Primary production—					
Wheat and wool industries	8,174	8,396	9,122	22,150	26,416
Other research and sales promotion, export funds, etc.	3,088	3,918	6,532	6,532	9,632
Bureau of Agricultural Economics	376	372	444	472	523
Bureau of Mineral Resources, Geology and Geophysics	3,366	4,020	4,930	4,708	4,775
Division of National Mapping	1,154	1,346	1,414	1,706	1,786
Atomic Energy Commission	5,608	6,518	7,594	8,040	8,226
Commonwealth Scientific and Industrial Research Organization	16,972	18,746	21,121	24,097	25,393
Other	13,936	15,173	16,749	17,366	25,273
Total, development, etc.	*58,861*	*65,276*	*74,132*	*93,580*	*111,436*
Civil aviation—					
Maintenance and development of civil aviation	14,758	15,728	17,736	20,296	22,516
Meteorological services	1,790	1,920	2,140	2,392	2,600
Other	5,374	5,819	6,773	7,271	8,337
Total, civil aviation, etc.	*21,922*	*23,467*	*26,649*	*29,959*	*33,453*
Legislature and general administration—					
Parliament	4,148	4,278	4,414	4,894	5,494
Governor-General	342	344	358	392	375
Audit	1,542	1,692	1,950	2,024	2,081
Public Service Board	1,736	1.838	2,134	2,420	2,738
Taxation Branch and Boards of Review	21,974	22,628	25,400	27,080	30,464
Bureau of Census and Statistics	6,648	5,572	6,276	7,346	8,783
Superannuation Board	288	362	422	498	752
Electoral Branch	2,220	1,568	2,530	2,772	2,164
News and Information Bureau	1,058	1,240	1,396	1.660	1,903
Other	34,808	37,149	(*a*)51,440	(*a*)59,284	(*a*)66,949
Total, legislature, etc.	*74,764*	*76,671*	*96,320*	*108,370*	*121,703*
Immigration—					
Assisted migration	10,618	13,205	17,745	25,458	26,186
Other	8,374	7,683	7,901	8.566	9,409
Total, immigration	*18,992*	*20,888*	*25,646*	*34,024*	*35,595*
Regulation of trade and industry—					
Conciliation and Arbitration Commission, Industrial Court and Registrar	704	734	816	884	996
Patents, trade marks and designs	1,040	1,178	1,330	1,478	1,515
Inspection of goods for export	2,892	3,186	3,670	4,498	4,910
Other	240	3,240	3,466	3,380	3,134
Total, regulation, etc.	*4,876*	*8,338*	*9,282*	*10,240*	*10,555*
Other functions—					
National Library	926	1,034	1,374	1,622	1,941
High Commissioner's Office, United Kingdom	2,166	2,330	2,562	2,982	3,748
Other overseas representation	5,380	6,144	6,752	7.290	9,670
United Nations and allied Organizations	5,474	2,396	3,864	3,288	3,455
Antarctic Division	1,462	1,628	1,668	1.902	1,985
Other	2,121	8,073	(*a*) 6,546	(*a*) 9,468	(*a*) 9,432
Total, other functions	*17,529*	*21,605*	*22,766*	*26,552*	*30,231*
Not allocated to function—					
Superannuation contributions, n.e.i.	6.774	6,790	8 706	10,592	12,019
Other	4,122	2,388	2,398	3,320	3,731
Total, not allocated	*10,896*	*9,178*	*11,104*	*13,912*	*15,750*
Grand total	**654,189**	**617,858**	**771,384**	**1,006,521**	**1,155,385**

(*a*) Changes in departmental accounting procedures. which were introduced in 1963–64, affect comparability between years.

Capital expenditure on goods and services

In the following table details are given of capital expenditure on goods and services during each of the years 1961–62 to 1965–66. The table covers capital expenditure on goods and services from the Consolidated Revenue Fund for purposes other than defence and repatriation services

COMMONWEALTH CONSOLIDATED REVENUE FUND: CAPITAL EXPENDITURE ON GOODS AND SERVICES, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Business undertakings—					
Cultural and recreational facilities	5,694	7,660	6,548	9,246	7,567
Transport and communication—					
Postmaster-General	93,878	123,946	136,836	159,796	181.738
Railways	3,392	4,416	5,878	6,514	9,724
Other	488	388	708	960	1,916
Housing(*a*)	8,938	9,564	8,814	11,620	14,194
Other	924	1,050	1,150	914	800
Total, business undertakings	*113,314*	*147,024*	*159,934*	*189,050*	*215,939*
Other—					
Education—					
Australian National University	4,040	2,896	4,678	5,392	5,062
Australian Capital Territory	3,084	3,350	3,712	3,956	3,284
Northern Territory	534	849	864	1,377	1,503
Total, education	*7,658*	*7,095*	*9,254*	*10,725*	*9,849*
Health and welfare—					
Australian Capital Territory	718	1,608	2,148	2,584	1,866
Other health and welfare	1,540	767	933	905	1,815
Total, health and welfare	*2,258*	*2,375*	*3,081*	*3,489*	*3,681*
Repatriation	922	996	712	1,124	1,156
Development of resources and assistance to industry—					
Atomic Energy Commission	1,938	1,524	1,064	1,390	1,292
Australian Capital Territory	1,348	1,582	920	2,822	3,395
Commonwealth Scientific and Industrial Research Organization	2,054	1,936	3,610	6,396	3,380
Other development, etc.	1,352	1,768	1,684	1,580	2,181
Total, development	*6,692*	*6,810*	*7,278*	*12,188*	*10,248*
Civil aviation	8,796	9,770	11,774	17,628	21,941
Roads—					
Australian Capital Territory	6,060	5,932	5,388	6,450	10,156
Other roads	2,166	3,930	3,664	2,912	4 319
Total, roads	*8,226*	*9,862*	*9,052*	*9,362*	*14,475*
Housing(*b*)	782	938	872	816	1,063
Other functions—					
Australian Capital Territory	6,078	7,732	12,936	11,178	11,321
Papua and New Guinea	42	80	48	4	125
Other	12,576	10,644	11,543	12,780	13,094
Total, other functions	*18,696*	*18,456*	*24,527*	*23,962*	*24.540*
Not allocated to function	11,930	12,536	11,028	13,462	12,952
Grand total	179,274	215,862	237,512	281,806	315,844

(*a*) *See also* separate item Housing. (*b*) *See also* under Business undertakings.

Expenditure on primary production—research and sales promotion, export funds, etc.

Expenditure under this item is classified in the table on page 785 to development of resources and assistance to industry as it includes the proceeds of special industry taxes and profits from marketing schemes which are paid to trust funds or other authorities for the purposes of the industries concerned. Information relating to the taxes levied is given in the table on page 779. Some details of expenditure from the trust funds are included in the table on page 788. Details of expenditure from the Consolidated Revenue Fund during the last five years are given in the following table.

COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE ON PRIMARY PRODUCTION—RESEARCH AND SALES PROMOTION, EXPORT FUNDS, ETC., 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Research and sales promotion—					
Canned fruit (sales promotion)	107	84	101	64	130
Cattle and beef research	339	1,008	1,433	1,613	1,930
Dairy produce research	554	523	590	510	712
Dairy produce sales promotion	525	525	523	526	779
Tobacco industry research	338	183	401	364	322
Wheat research	468	595	638	720	590
Wool industry research	..	..	1,594	3,181	2,824
Wool research	3,014	2,925	1,604	..	..
Wool use promotion	4,691	4,875	5,286	18,249	23,002
Export funds—					
Apple and pear	204	169	245	213	312
Canned fruits	132	131	185	170	216
Canned fruits excise	..	..	279	1,044	1,033
Dairy produce	207	412	530	675	776
Dried fruits	107	89	102	165	188
Dried vine fruits stabilisation fund—					
Currants	..	..	..	..	72
Raisins	..	..	..	..	165
Sultanas	..	..	..	..	1,530
Egg	68	36	57	78	25
Honey	..	4	74	94	110
Meat	278	431	484	741	1,042
Wine	225	319	225	274	288
Other—					
Fisheries development	..	1	..	..	..
Other	4	1	1	2	1
Total	**11,261**	**12,312**	**14,351**	**28,682**	**36,048**

Commonwealth Consolidated Revenue Fund: receipts

Sources of receipts

COMMONWEALTH CONSOLIDATED REVENUE FUND: SOURCES OF RECEIPTS 1961-62 TO 1965-66

($'000)

Source	1961–62	1962–63	1963–64	1964–65	1965–66
Taxation	2,833,049	2,880,918	3,218,838	3,787,030	4,185,338
Business undertakings	316,779	342,400	375,777	423,948	457,738
Territories—					
Northern Territory	4,002	4,210	4,944	5,611	6,434
Australian Capital Territory	7,986	11,250	14,086	18,193	18,571
Cocos (Keeling) Islands	4	4	8	8	9
Total, Territories	*11,992*	*15,464*	*19,038*	*23,813*	*25,013*
Interest	34,008	43,524	46 852	48,394	51,440
Dividends or payments in the nature of a dividend	4,105	3,826	5,076	5,118	5,197
Repayments	4,822	7,007	11,532	8,897	9,680
Coinage	1,179	212	..	..	..
Defence	9,612	12,325	44,651	28,961	28,906
Air navigation charges	2,786	2,966	3,755	4,437	6,888
Quarantine and other health services	222	311	372	344	463
Patents, trade marks, etc.	1,163	1,211	1,281	1,315	1,447
Bankruptcy	338	362	405	430	438
Net profit on Australian note issue	31,502	25,561	26,983	30,521	31,070
Unrequired balances of trust accounts	7,049	9,400	25,182	8,472	6,980
Australian Aluminium Production Commission	500	500	500	500	1,250
Reserve Bank Reserve Fund	6,705	8,973	3,351	4,983	10,500
Commonwealth Banking Corporation	1,843	1,433	2,290	3,477	3,232
Other	15,430	14,379	23,493	37,551	53,622
Grand total	**3,283,084**	**3.370,772**	**3,809,376**	**4,418,178**	**4,879,201**

Further information on receipts of business undertakings and the Territories is included respectively in the Chapters 13, Transport and Communication and 7, The Territories of Australia.

Commonwealth trust funds

The next table shows the opening and closing balances and receipts and expenditure of some of the more important trust funds of the Commonwealth for the year 1965–66, and the following table shows the totals for the last five years.

COMMONWEALTH TRUST FUNDS: RECEIPTS, EXPENDITURE AND BALANCES, 1965-66

($'000)

Fund	Balance at 30 June 1965	Year ended 30 June 1966		Balance at 30 June 1966
		Receipts	Expenditure	
Canadian Loan	15,049	563	227	15,385
Coal Mining Industry Long Service Leave	3,199	776	893	3,082
Coinage	..	33,315	24,898	8,417
Defence Forces Retirement Benefits	62,673	20,294	11,243	71,724
Insurance Deposits	23,548	4,694	3,041	25,200
Imperial Pensions	393	15,264	14,882	776
International Development and Relief	520	2,145	1,896	769
Lend-Lease Settlement	288	12	..	301
Loan Consolidation and Investment Reserve	691,419	237,674	121,150	807,942
Munitions Factories	4,897	55,838	56,256	4,479
Munitions Production	2,338	24,487	23,460	3,364
Munitions Stores and Transport	779	13,756	13,973	562
National Debt Sinking	302,544	202,307	199,855	304,996
National Welfare	422,581	945,815	941,574	426,822
Parliamentary Retiring Allowances	1,221	395	256	1,361
Post Office Stores and Services	3,136	172,771	175,800	107
Superannuation	261,643	63,620	46,356	278,906
Swiss Loan	34,746	1,116	..	35,862
Temple Society	1,478	2,153	7	3,624
Tobacco Industry	401	657	578	479
War Service Homes	..	73,061	73,061	..
War Service Homes—Insurance	1,663	741	688	1,716
Wheat Prices Stabilization	..	18,069	18,069	..
Wheat Research	1,877	1,316	1,472	1,720
Wine Research	853	38	68	824
Wool Research	11,021	3,454	7,124	7,351
Other	15,119	105,011	102,460	17,673
Total	1,863,386	1,999,342	1,839,287	2,023,442

COMMONWEALTH TRUST FUNDS: SUMMARY, 1961-62 TO 1965-66

($ million)

	1961–62	1962–63	1963–64	1964–65	1965–66
Balances brought forward	1,748	1,655	1,613	1,661	1,863
Receipts	1,432	1,443	1,546	1,827	1,999
Expenditure	1,525	1,485	1,498	1,625	1,839
Balance carried forward	1,655	1,613	1,661	1,863	2,023

Commonwealth Loan Fund

Brief historical notes relating to the Commonwealth Loan Fund are given in earlier issues of the Year Book (*see* No. 37, page 640). The following tables show details for the years 1961–62 to 1965–66 of receipts by, and expenditure from, Commonwealth Loan Fund in respect of loans raised for both Commonwealth and State Governments. Information relating to the Commonwealth Government securities on issue is given in the division Government Securities on Issue, Commonwealth and States, of this chapter.

Loans raised for the Commonwealth

COMMONWEALTH LOAN FUND: LOANS RAISED FOR THE COMMONWEALTH RECEIPTS AND EXPENDITURE, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Balance from 30 June	158	196	97	125	205
Loans raised in Australia—					
Stocks and bonds	82,000	57,831	143,919	87,905	111,308
Special bonds	21,054	38,972	26,352	34,342	32,304
Advance loan subscriptions	2,749	22,814	*Dr.* 21,560	3,305	*Dr.* 213
Treasury bills—public (net)	73,200	*Dr.*117,400	*Dr.* 2,400	38,000	5,500
Treasury bills—internal (investment of Trust Fund) (net)	5,400	77,800	39,400	33,400	49,100
Treasury notes	..	138,980	13,590	*Dr.* 72,138	35,664
Peace savings certificates	3	2	2	2	..
Loans raised overseas—					
London—stock and bonds	1	5,414	20,636	..	..
New York—bonds	13,994	34,931	..	4,421	4,474
Loan—Qantas Empire Airways Limited	23,653	4,134	4,033	26,292	25,214
Loan—Australian National Airlines Commission	..	1,119	1,121	8,566	5,075
International Bank dollar loan	..	28,472	24,232	21,151	15,299
Netherlands loan	1,772	..	..	..	..
Total, loans raised	*223,827*	*293,069*	*249,325*	*185,247*	*283,725*
Deduct—					
Expenses of flotation—					
Loans raised in Australia	*Cr.* 318	1,804	*Cr.* 631	306	372
London loans	*Cr.* 1,051	85	317	..	..
New York loans	119	911	..	147	87
Canadian loans	*Cr.* 7	..	..	..	..
Swiss loans	1	..	..	..	..
Netherlands loan	83	..	..	..	..
Total, deductions	*Cr. 1,172*	*2,799*	*Cr. 314*	*452*	*460*
Total loan raisings less *expenses of flotation*	*224,999*	*290,270*	*249,638*	*184,795*	*283,265*
Grand total	**225,157**	**290,466**	**249,736**	**184,920**	**283,471**
EXPENDITURE					
Financial assistance to States for housing—					
New South Wales	34,006	32,600	33,000	35,000	40,271
Victoria	27,054	25,700	26,500	27,000	31,126
Queensland	8,400	7,800	8,600	6,600	8,497
South Australia	18,072	18,982	19,400	20,500	21,057
Western Australia	7,412	6,940	6,800	7,200	8,601
Tasmania	5,856	5,200	6,000	6,400	7,448
Total, States, housing	*100,800*	*97,222*	*100,300*	*102,700*	*117,000*
Defence services	47,281	132,141	77,431	..	89,545
War and repatriation services	3,154	1,214	8,525	7,234	6,358
Loan—Qantas	23,653	4,134	4,033	26,292	25,214
Loan—Australian National Airlines Commission	..	1,119	1,121	8,566	5,075
Mount Isa Railway Agreement	7,500	11,917	12,100	3,016	..
Snowy Mountains Hydro-electric Authority	..	26,200	23,402	19,600	16,000
Works and other purposes—repayments	*Cr.* 60	*Cr.* 33	*Cr.* 566	*Cr.* 93	..
Other	..	..	..	..	330
Redemptions—					
Treasury bills—internal	25,800	..	..	..	..
Stock and bonds—Australia	5	9,299	9,085	..	..
Stock and bonds—London	..	..	14,180	..	..
Bonds—New York	10,111	..	..	..	..
Special bonds	6,715	7,155	..	17,400	23,810
Balance at 30 June	196	97	125	205	139
Grand total	**225,157**	**290,466**	**249,736**	**184,920**	**283,471**

Loans raised for the States

COMMONWEALTH LOAN FUND: LOANS RAISED FOR THE STATES RECEIPTS AND EXPENDITURE, 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Balance from 30 June	..	..	..	..	..
Loans raised in Australia—					
Stock and bonds	337,257	361,622	363,889	457,159	523,795
Special bonds	33,682	39,192	65,207	53,124	48,121
Loans raised overseas—					
London—stock and bonds	..	32,221	28,762	..	..
New York—bonds	34,021	39,287	..	17,686	17,895
Netherlands bonds	8,142	..	..	..	..
Total	**413,101**	**472,323**	**457,857**	**527,969**	**589,812**
EXPENDITURE					
Payments of loan proceeds to the States—					
New South Wales	124,596	130,808	140,020	149,470	152,150
Victoria	99,091	105,360	111,728	120,954	123,206
Queensland	46,300	42,576	42,412	48,000	63,692
South Australia	50,296	51,458	55,184	59,020	61,892
Western Australia	39,162	41,044	44,006	46,968	47,902
Tasmania	28,996	29,768	30,318	32,244	33,228
Total payments to States	*388,441*	*401,014*	*423,668*	*456,656*	*482,070*
Redemptions—					
Stock and bonds—Australia	..	54,620	24,384	30,000	56,000
Special bonds	8,478	8,543	9,806	16,238	31,683
London	..	8,146	..	25,075	20,060
New York	16,183	..	..	..	..
Balance at 30 June	..	..	..	..	..
Grand total	**413,101**	**472,323**	**457,857**	**527,969**	**589,812**

STATE FINANCE

Functions of State Governments

In comparing the financial results of the States allowances must be made for the various functions discharged by the respective State Governments and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the central government are in another delegated to local government or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the central government. Care is needed, therefore, in making comparisons, and the particulars contained in this chapter should be read with those contained in the chapter Local Government.

Accounts of State Governments

The various financial transactions of the States are in each case concerned mainly with one or other of three funds—the Consolidated Revenue Fund, the Trust Fund and the Loan Fund.

The following table shows the receipts by, and expenditure from, Commonwealth Loan Fund in respect of loans raised for the State Governments during the years 1961–62 to 1965–66.

All revenue (except certain items paid into special funds) collected by a State is paid into its *Consolidated Revenue Fund*, from which payments are made under authority of an annual Appropriation Act passed by the legislature, or by a permanent appropriation under a special Act. Figures relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These undertakings are: railways, tramways and omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The *Trust Fund* comprises all moneys held in trust by the Government and includes such items as superannuation funds, road funds, insurance companies' deposits, etc.

The *Loan Fund* is debited with all loan moneys raised for the State and credited with the expenditure therefrom on public works or other purposes.

Inter-relation of Commonwealth and State finances

A statement in some detail, covering the inter-relation of Commonwealth and State finances during the period from the inception of federation to the passing of the *Financial Agreement Act* 1928, was published in Year Book No. 22, pages 379–80. Changes in the financial relations between the Commonwealth and States since the passing of the Financial Agreement Act have been described in issues of the Year Book from year to year.

State Consolidated Revenue Fund expenditure

The principal heads of State expenditure from Consolidated Revenue Funds are: (*a*) interest, exchange and debt redemption charges in connection with debt; (*b*) working expenses of business undertakings; (*c*) education; (*d*) health and charitable expenditure; (*e*) justice; (*f*) police; (*g*) penal establishments; and (*h*) all other expenditure, including expenditure on public works, lands and surveys, agriculture and forestry, legislative and general administration, pensions, and miscellaneous.

The working expenses of railways and tramways are the largest item of State Government expenditure. In 1965–66 the working expenses of the railways, tramways and omnibuses were 21.3 per cent of the total expenditure from the State Consolidated Revenue Funds; education, 23.6 per cent; debt charges, 17.5 per cent; charitable, public health and hospitals, 13.6 per cent; and law, order and public safety, 5.8 per cent.

Total expenditure

The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1961–62 to 1965–66 are shown in the following table.

STATE CONSOLIDATED REVENUE FUND EXPENDITURE, 1961-62 TO 1965-66

Year	N.S.W.(*a*)	Vic.	Qld	S.A.	W.A.	Tas.	Total
			EXPENDITURE ($'000)				
1961–62 .	597,489	392,597	234,431	177,192	151,780	63,302	1,616,790
1962–63 .	624,888	414,150	246,928	186,789	158,687	64,301	1,695,742
1963–64 .	683,992	444,874	260,454	199,755	170,681	69,577	1,829,333
1964–65 .	734,160	480,668	271,215	216,803	184,840	77,447	1,965,133
1965–66 .	776,314	516,689	298,022	235,650	206,665	86,917	2,120,259
			PER HEAD OF POPULATION ($)				
1961–62 .	151.25	132.80	153.17	181.38	203.62	179.25	153.80
1962–63 .	155.53	137.55	158.96	187.58	207.02	179.56	158.44
1963–64 .	167.85	144.91	164.41	195.78	216.74	191.86	167.80
1964–65 .	177.43	153.35	167.91	206.77	229.52	211.48	176.92
1965–66 .	184.67	161.88	180.90	218.63	250.51	235.29	187.38

(*a*) *See* above for transactions included.

Details of expenditure

The following tables show the total expenditure and expenditure per head of population for each of the principal items. For further information on the finances of the various types of business undertakings in the States *see* the chapters Transport, Communication and Travel and Local Government of this Year Book.

STATE CONSOLIDATED REVENUE FUND EXPENDITURE: DETAILS, 1965-66

	N.S.W.(*a*)	Vic.	Qld	S.A.	W.A.	Tas.(*b*)	Total
			EXPENDITURE ($'000)				
Debt (interest, exchange, debt redemption, etc.)	102,250	95,940	50,558	56,259	39,238	26,307	370,551
Railways	167,770	94,878	86,347	29,337	40,625	3,156	422,112
Tramways and omnibuses	27,022	..	..	..	1,332	760	29,114
Harbours and rivers, etc.	12,329	1,395	..	3,294	2,380	46	19,445
Water supply, sewerage, irrigation and drainage	..	9,419	..	11,416	5,849	617	27,301
Other business and industrial undertakings	..	1,147	30	552	3,435	70	5,235
Education	189,091	140,289	56,195	54,372	40,819	18,967	499,733
Health and charitable	97,172	72,227	43,025	32,148	29,330	11,686	285,587
Justice	13,278	4,931	3,931	1,683	1,608	856	26,286
Police	28,387	21,038	12,378	6,887	5,686	2,727	77,102
Penal establishments	6,612	2,916	1,619	1,766	1,650	696	15,258
Public safety	1,961	74	1,356	353	438	219	4,400
All other expenditure	130,444	72,437	42,583	37,583	34,277	20,812	338,135
Total	776,314	516,689	298,022	235,650	206,665	86,917	2,120,259
			PER HEAD OF POPULATION ($)				
Debt (interest, exchange, debt redemption, etc.)	24.32	30.06	30.69	52.20	47.56	71.22	32.75
Railways	39.91	29.73	52.41	27.22	49.24	8.54	37.30
Tramways and omnibuses	6.43	..	..	..	1.61	2.06	2.57
Harbours and rivers, etc.	2.93	0.44	..	3.06	2.88	0.12	1.72
Water supply, sewerage, irrigation and drainage	..	2.95	..	10.59	7.09	1.67	2.41
Other business and industrial undertakings	..	0.36	0.02	0.51	4.16	0.19	0.46
Education	44.98	43.95	34.11	50.45	49.48	51.35	44.16
Health and charitable	23.11	22.63	26.12	29.83	35.55	31.62	25.24
Justice	3.16	1.54	2.39	1.56	1.95	2.32	2.32
Police	6.75	6.59	7.51	6.39	6.89	7.38	6.81
Penal establishments	1.57	0.91	0.98	1.64	2.00	1.88	1.35
Public safety	0.48	0.02	0.82	0.33	0.53	0.59	0.39
All other expenditure	31.03	22.69	25.85	34.87	41.55	56.34	29.88
Total	184.67	161.88	180.90	218.63	250.51	235.29	187.38

(*a*) *See* page 791 for transactions included. (*b*) Tasmanian transport services are under the separate control of semi-governmental authorities. Figures shown for relevant items represent payments to the authorities.

TOTAL STATE CONSOLIDATED REVENUE FUND EXPENDITURE: DETAILS 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Debt (interest, exchange, debt redemption, etc.)	274,909	301,723	320,403	343,990	370,551
Railways, tramways and omnibuses (working expenses)	400,363	397,940	420,585	443,947	451,226
Harbours and rivers, etc.	15,847	15,985	19,035	20,652	19,445
Water supply, sewerage, irrigation and drainage	25,374	25,706	26,313	24,840	27,301
Other business and industrial undertakings	5,386	5,492	5,187	6,260	5,235
Education	328,004	359,053	401,009	457,333	499,733
Health and charitable	226,568	231,051	239,167	260,508	285,587
Justice	20,022	19,910	21,749	24,187	26,286
Police	59,607	62,961	68,008	72,981	77,102
Penal establishments	11,714	12,223	13,054	14,204	15,258
Public safety	3,345	3,773	3,935	4,038	4,400
All other expenditure	245,653	259,925	290,887	292,194	338,135
Total	**1,616,790**	**1,695,742**	**1,829,333**	**1,965,133**	**2,120,259**

State Consolidated Revenue Fund receipts

The principal sources of State revenue are: (*a*) taxation; (*b*) the business undertakings controlled by the State Governments; (*c*) sale of and rental from crown lands; (*d*) interest on advances; (*e*) payments by the Commonwealth Government under the Financial Agreements, Special Grants and Financial Assistance Acts, etc.; (*f*) Commonwealth National Welfare Fund payments; and (*g*) miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue to the Consolidated Revenue Funds for the States as a whole in the year 1965–66 was Commonwealth payments under financial assistance and other grants (40.4 per cent of the total revenue). Next in magnitude was the group of business undertakings (26.4 per cent), the principal contributors being the Government railways and tramways, followed by taxation receipts (18.0 per cent). More than one-quarter of the total State taxation collections are not paid into Consolidated Revenue Funds, however, but into special funds (*see* pages 796 and 798). Of the remaining sources of revenue, interest (n.e.i.) constituted 4.3 per cent, land revenue 3.0 per cent, and National Welfare Fund payments 1.3 per cent.

Total receipts

The following table shows particulars of the total receipts and the receipts per head of population of the Consolidated Revenue Funds of the several States.

STATE CONSOLIDATED REVENUE FUNDS

YEAR ENDED 30 JUNE 1966

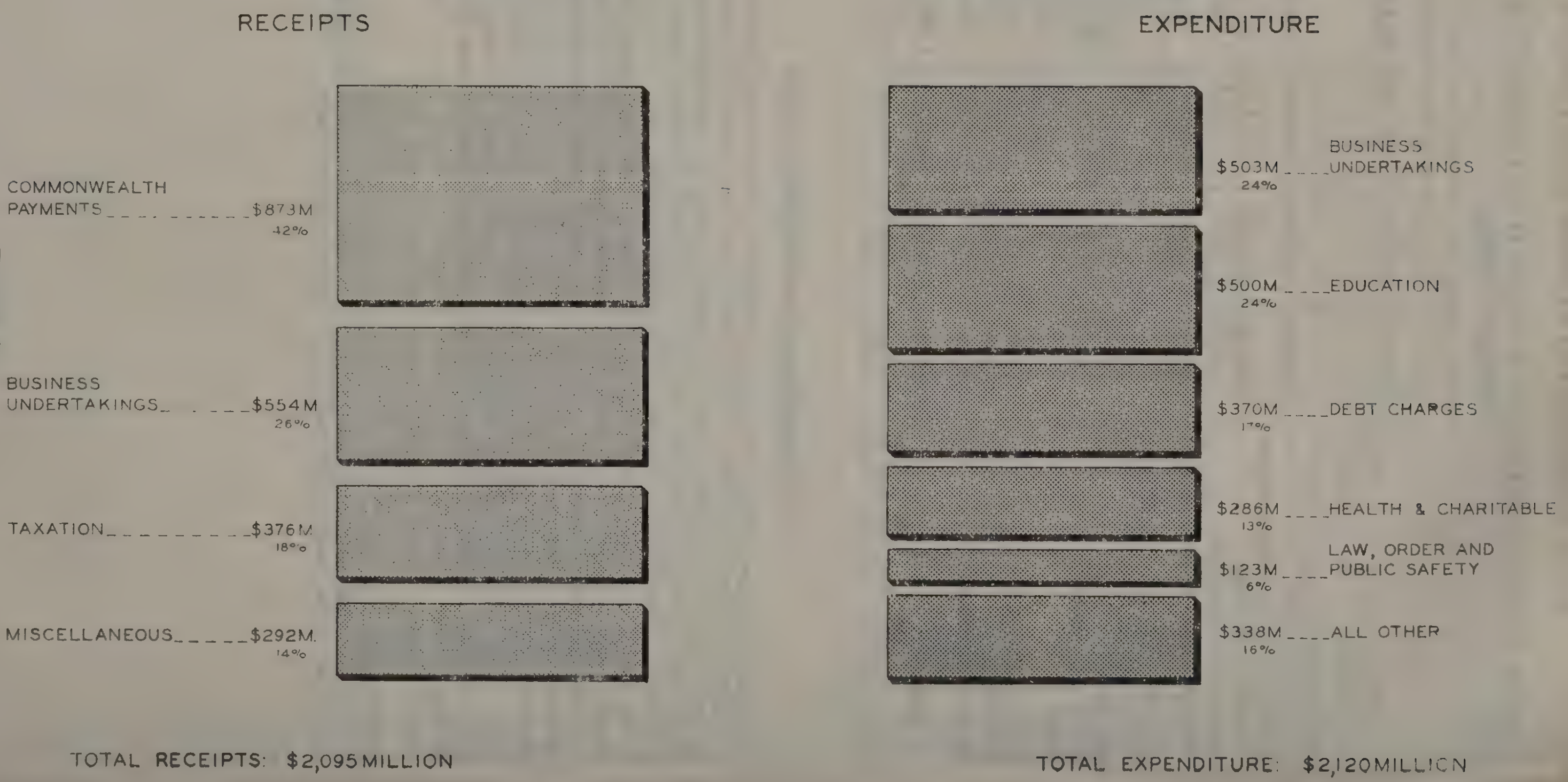


PLATE 42

STATE CONSOLIDATED REVENUE FUND RECEIPTS 1961–62 TO 1965–66

Year	N.S.W.(*a*)	Vic.	Qld	S.A.	W.A.	Tas.	Total
RECEIPTS ($'000)							
1961–62	591,223	392,618	234,650	178,205	149,852	62,585	1,609,133
1962–63	625,260	414,151	246,983	187,368	157,182	63,318	1,694,262
1963–64	684,535	444,368	260,897	203,006	167,888	68,391	1,829,087
1964–65	729,091	480,668	267,139	214,181	180,143	75,828	1,947,050
1965–66	771,627	508,554	294,502	228,816	206,655	84,896	2,095,051
PER HEAD OF POPULATION ($)							
1961–62	149.67	132.81	153.31	182.42	201.04	177.22	153.07
1962–63	155.62	137.55	159.00	188.17	205.05	176.81	158.30
1963–64	167.98	144.74	164.69	198.97	213.20	188.59	167.78
1964–65	176.21	153.35	165.39	204.27	223.69	207.06	175.29
1965–66	183.55	159.33	178.76	212.29	250.50	229.82	185.16

(*a*) *See* page 791 for transactions included.

Sources of revenue

Classifying the revenue of the several States in the manner indicated on page 793, particulars for the year 1965–66 were as follows.

STATE CONSOLIDATED REVENUE FUND RECEIPTS BY SOURCE, 1965–66

Source of revenue	N.S.W. (*a*)	Vic.	Qld	S.A.	W.A.	Tas. (*b*)	Total
RECEIPTS ($'000)							
Taxation(*c*)	138,324	123,454	42,546	36,852	23,314	11,934	376,422
Business undertakings	236,989	126,773	81,717	58,597	49,267	602	553,946
Lands	34,501	8,654	10,701	2,067	4,598	1,759	62,281
Interest, n.e.i.	8,306	20,735	14,783	19,167	12,594	13,854	89,440
Commonwealth grants(*d*)—							
Financial assistance	255,001	191,922	113,357	86,467	78,474	32,131	757,351
Other(*e*)	20,466	4,334	13,351	7,722	24,985	18,266	89,126
Commonwealth National Welfare Fund payments(*f*)	17,332	3,923	1,469	2,187	137	1,281	26,329
Miscellaneous	60,708	28,758	16,576	15,757	13,287	5,070	140,155
Total	**771,627**	**508,554**	**294,502**	**228,816**	**206,655**	**84,896**	**2,095,051**
PER HEAD OF POPULATION ($)							
Taxation(*c*)	32.90	38.68	25.82	34.19	28.26	32.31	33.27
Business undertakings	56.37	39.72	49.60	54.37	59.72	1.63	48.95
Lands	8.21	2.71	6.50	1.92	5.57	4.76	5.50
Interest, n.e.i.	1.98	6.50	8.97	17.78	15.27	37.50	7.90
Commonwealth grants(*d*)—							
Financial assistance	60.66	60.13	68.81	80.22	95.12	86.98	66.93
Other(*e*)	4.87	1.36	8.10	7.16	30.29	49.45	7.88
Commonwealth National Welfare Fund payments(*f*)	4.12	1.23	0.89	2.03	0.17	3.47	2.33
Miscellaneous	14.44	9.01	10.06	14.62	16.11	13.72	12.39
Total	**183.55**	**159.33**	**178.76**	**212.29**	**250.50**	**229.82**	**185.16**

(*a*) *See* page 791. (*b*) Tasmanian transport services are under the separate control of semi-governmental authorities. (*c*) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections *see* next page. (*d*) Excludes Commonwealth payments paid to trust funds. (*e*) Includes payments under Financial Agreement, special grants, additional financial assistance, grants to universities, etc. (*f*) Consolidated Revenue Fund receipts only. Excludes payments to Trust Funds.

State receipts from taxation

In the tables on taxation collections in these paragraphs the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under Racing instead of under Stamp duties and Licences respectively.

Net taxation collections

The following tables show, for the year 1965–66, details of the collections by each State Government from the various types of tax in operation, irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and present a comprehensive statement of all taxation collections by the Government in each State.

STATE RECEIPTS FROM TAXATION: NET COLLECTIONS(*a*), BY TYPE OF TAX 1965–66 ($'000)

Tax	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Motor—							
Registration fees and taxes	37,251	36,034	15,704	10,929	8,992	3,533	112,443
Drivers', etc., licences	6,989	2,850	1,056	958	1,059	381	13,293
Other	17,836	14,058	8,356	3,719	2,305	572	46,845
Total, motor	*62,076*	*52,942*	*25,115*	*15,606*	*12,356*	*4,486*	*172,581*
Probate and succession duties	40,041	32,003	10,328	6,134	3,947	2,005	94,457
Stamp duties, n.e.i.	39,890	36,443	13,733	7,978	8,723	2,826	109,592
Land	34,477	19,881	4,148	5,638	3,398	2,029	69,570
Liquor	11,397	8,031	4,048	1,142	2,013	739	27,369
Lotteries	..	6,294	710	..	..	..	7,004
Racing	9,724	12,190	4,005	2,453	2,895	1,041	32,309
Poker machine licence fees	15,761	..	..	..	..	..	15,761
Licences, n.e.i.	448	1,245	213	220	566	26	2,717
Other	1	..	5,832	361	1,083	..	7,275
Grand total	**213,814**	**169,028**	**68,131**	**39,532**	**34,981**	**13,150**	**538,637**

(*a*) From all sources of taxation irrespective of whether paid to Consolidated Revenue Fund or to other funds.

Of the total taxation collections detailed above, the following were paid into special funds.

STATE RECEIPTS FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS, 1965–66 ($'000)

Tax	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Motor	59,146	44,405	19,332	1,903	10,584	808	136,179
Stamp duties, n.e.i.	..	571	..	..	..	..	571
Liquor	..	383	172	..	..	..	555
Racing	583	..	354	777	..	408	2,123
Poker machine licence fees	15,761	..	..	..	..	..	15,761
Other	..	215	5,727	..	1,083	..	7,025
Total	**75,490**	**45,574**	**25,586**	**2,680**	**11,667**	**1,217**	**162,214**

The table hereunder shows, for the year 1965–66, the proportions of collections under individual classes of tax to total taxation revenue.

STATE RECEIPTS FROM TAXATION: PROPORTIONS OF INDIVIDUAL TAXES TO TOTAL, 1965-66

(Per cent)

Tax	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Motor	29.03	31.32	36.86	34.96	35.32	34.11	31.70
Probate and succession duties	18.72	18.93	15.16	15.52	11.28	15.25	17.53
Stamp duties, n.e.i.	18.65	21.56	20.16	24.70	24.94	21.49	20.67
Land	16.12	11.76	6.09	14.26	9.71	15.43	12.91
Liquor	5.33	4.75	5.94	2.89	5.76	5.62	5.08
Lotteries	..	3.72	1.04	..	..	..	1.30
Racing	4.55	7.21	5.88	6.21	8.28	7.92	6.01
Poker machine licence fees	7.37	..	..	..	..	..	2.93
Licences, n.e.i.	0.21	0.74	0.31	0.56	1.62	0.20	0.51
Other	..	..	8.56	0.91	3.09	..	1.35
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Funds, during the years 1961–62 to 1965–66 are shown in the following tables.

STATE RECEIPTS FROM TAXATION: NET COLLECTIONS, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
NET COLLECTIONS ($'000)							
1961–62	134,866	115,638	48,549	25,902	20,400	9,609	354,963
1962–63	156,182	121,964	54,046	27,691	22,996	10,184	393,062
1963–64	185,919	135,757	60,582	30,619	26,713	11,110	450,701
1964–65	201,026	151,640	64,887	37,255	29,600	11,918	496,326
1965–66	213,814	169,028	68,131	39,532	34,981	13,150	538,637
PER HEAD OF POPULATION ($)							
1961–62	34.14	39.12	31.72	26.51	27.37	27.21	33.77
1962–63	38.87	40.51	34.79	27.81	30.00	28.44	36.73
1963–64	45.62	44.19	38.24	30.01	33.92	30.64	41.34
1964–65	48.58	48.42	40.17	35.53	36.76	32.54	44.70
1965–66	50.86	52.96	41.35	36.68	42.40	35.60	47.61

STATE RECEIPTS FROM TAXATION: TOTAL NET COLLECTIONS(*a*), BY TYPE OF TAX, 1961-62 TO 1965-66

($'000)

Tax	1961–62	1962–63	1963–64	1964–65	1965–66
Motor	103,216	115,518	136,714	153,270	172,581
Probate and succession duties	75,166	80,028	91,090	91,443	94,457
Stamp duties, n.e.i.	73,056	81,757	93,080	104,436	109,592
Land	45,321	49,410	55,134	62,765	69,570
Liquor	19,722	22,203	23,784	26,179	27,369
Lotteries	7,017	7,090	7,310	7,454	7,004
Racing	18,230	21,198	23,361	27,340	32,309
Entertainments	2,180	941	53	..	..
Poker machine licence fees	3,544	6,558	11,268	13,666	15,761
Licences, n.e.i., and all other	7,511	8,360	8,906	9,772	9,992
Total	**354,963**	**393,062**	**450,701**	**496,326**	**538,637**

(*a*) From all sources of taxation irrespective of whether paid to Consolidated Revenue or to other funds.

Taxation collections paid to special funds

Details of taxation collections paid into special funds and included in the foregoing table are shown below.

STATE RECEIPTS FROM TAXATION: TOTAL PAYMENTS INTO SPECIAL FUNDS, 1961-62 TO 1965-66

($'000)

Tax	1961–62	1962–63	1963–64	1964–65	1965–66
Motor	86,120	96,872	111,830	121,398	136,179
Stamp duties, n.e.i.	401	484	508	546	571
Liquor	341	464	540	535	555
Racing	1,097	1,356	1,481	1,832	2,123
Poker machine licence fees	3,544	6,558	11,268	13,666	15,761
Other	5,080	5,527	5,948	6,756	7,025
Total	**96,583**	**111,262**	**131,575**	**144,734**	**162,214**

State Consolidated Revenue Fund receipts from business undertakings

A considerable proportion of State gross revenue is made up of receipts from business undertakings under the control of the Governments. The most important of these are railways and tramways, harbour works, water supply and sewerage, and electricity supply. In addition, State batteries for the treatment of auriferous ores in Western Australia and various minor revenue-producing services rendered by the Governments of all States are included. For the year 1965–66 the receipts from these sources was $553,946,000 or 26.4 per cent of the receipts from all sources.

STATE CONSOLIDATED REVENUE FUND: RECEIPTS FROM BUSINESS UNDERTAKINGS, BY SOURCE, 1965-66

($'000)

Source	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(*a*)	Total
Railways(*b*)	195,336	99,673	81,717	29,763	41,864	..	448,353
Tramways and omnibuses	25,130	..	..	..	..	..	25,130
Harbours, rivers, lights	16,523	(*c*) 2,037	..	6,195	2,387	..	27,142
Water supply, sewerage, irrigation and drainage	..	13,102	..	20,934	3,308	26	37,370
Electricity supply	..	11,051	..	..	..	..	11,051
Other	..	910	..	1,705	1,708	577	4,900
Total	236,989	126,773	81,717	58,597	49,267	602	553,946

(*a*) Tasmanian transport services are under the separate control of semi-governmental authorities. (*b*) The following contributions to railways revenue from Consolidated Revenue Fund are excluded—New South Wales, $1,600,000; South Australia, $8,000,000. (*c*) Includes Harbour Trust Fund contribution, $1,382,000.

STATE CONSOLIDATED REVENUE FUND RECEIPTS FROM BUSINESS UNDERTAKINGS, 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas. (*a*)	Total
RECEIPTS ($'000)							
1961–62	215,080	106,449	70,144	48,897	44,077	223	484,870
1962–63	220,965	108,401	73,267	49,927	45,103	163	497,826
1963–64	242,824	115,715	81,124	54,904	47,175	236	541,978
1964–65	255,024	127,416	79,813	57,256	42,631	348	562,487
1965–66	236,989	126,773	81,717	58,597	49,267	602	553,946
PER HEAD OF POPULATION ($)							
1961–62	54.45	36.01	45.83	50.05	59.13	0.63	46.12
1962–63	55.00	36.00	47.17	50.14	58.84	0.46	46.51
1963–64	59.59	37.67	51.21	53.81	59.91	0.65	49.47
1964–65	61.63	40.65	49.41	54.61	52.94	0.95	50.64
1965–66	56.37	39.72	49.60	54.37	59.72	1.63	48.95

(*a*) Tasmanian transport services are under the separate control of semi-governmental authorities.

STATE CONSOLIDATED REVENUE FUND: TOTAL RECEIPTS FROM BUSINESS UNDERTAKINGS, BY SOURCE, 1961–62 TO 1965–66

($'000)

Source	1961–62	1962–63	1963–64	1964–65	1965–66
Railways, tramways and omnibuses	419,711	429,633	465,557	485,800	473,483
Harbour services	21,340	21,480	25,058	27,371	27,142
Water supply, sewerage, irrigation and drainage	32,767	34,801	38,548	33,424	37,370
Other	11,053	11,911	12,815	15,892	15,951
Total	**484,870**	**497,826**	**541,978**	**562,487**	**553,946**

For further information on the finances of the various types of business undertakings in the States *see* the chapters Transport, Communication and Travel and Local Government of this Year Book.

Other State Consolidated Revenue Fund receipts

State land receipts

The receipts from the sale and rental of Crown lands have, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and have been applied to meet ordinary expenses. The following table shows the revenue from sales and rentals of Crown lands for the year 1965–66.

STATE CONSOLIDATED REVENUE FUND LAND RECEIPTS, BY SOURCE
1965–66
($'000)

Source	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Sales	2,281	526	1,605	317	268	105	5,103
Conditional purchases	435	..	..	22	481	..	939
Rentals(*a*)	28,651	2,085	8,156	1,728	1,144	134	41,898
Forestry	2,852	5,560	..	..	2,705	1,500	12,617
Other	282	483	940	..	..	20	1,724
Total	**34,501**	**8,654**	**10,701**	**2,067**	**4,598**	**1,759**	**62,281**

(*a*) Includes mining royalties, rents, etc.

The total land receipts for all States for the years 1961–62 to 1965–66 respectively were: $31,572,000, $32,725,000, $38,478,000, $56,458,000, and $62,281,000.

State receipts from Commonwealth grants

Commonwealth grants to the States represent a very large proportion of the States' receipts. In 1965–66 the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was $846,477,000 (40.4 per cent). Details were as follows: contribution towards interest on States' debts under the Financial Agreement, $15,170,000; special grants to the States of Western Australia and Tasmania, $41,770,000; financial assistance, $757,351,000; drought assistance, $21,700,000; grants to universities, $9,897,000, and other grants, $589,000. In addition to these, the States receive a number of other grants which are paid to Trust Funds. The main items in this class are the contribution to the sinking fund on States' debts ($17,761,000 in 1965–66) paid to the National Debt Sinking Fund, grants for Commonwealth Aid Roads ($140,000,000 in 1965–66), and grants for universities ($36,881,000 in 1965–66) paid to State Trust Funds. More detailed information concerning Commonwealth grants to the States is given on pages 766–75.

State receipts from Commonwealth National Welfare Fund

The States also receive payments from the Commonwealth in respect of hospital and pharmaceutical benefits, milk for school children, and reimbursement of maintenance expenditure on tuberculosis sanatoriums. These receipts are paid into Consolidated Revenue Funds or Trust Funds according to the varying accounting procedures in the States. In 1965-66 the total amount paid to State Consolidated Revenue Funds was $26,329,000 (1.3 per cent). This amount was made up of hospital benefits, $2,798,000; pharmaceutical benefits, $8,384,000; milk for school children, $2,916,000; tuberculosis—reimbursement of maintenance expenditure, $11,484,000; other, $748,000.

State surplus revenue

The following table shows for each of the years 1961–62 to 1965–66 the total amount and amount per head of population of the surplus or deficit of each State.

STATE SURPLUS REVENUE, 1961–62 TO 1965–66

Year	N.S.W.(*a*)	Vic.	Qld	S.A.	W.A.	Tas.	Total
			TOTAL AMOUNT ($'000)				
1961–62 . .	−6,266	21	219	1,013	−1,928	−717	−7,656
1962–63 . .	372	1	55	580	−1,506	−983	−1,480
1963–64 . .	544	−505	443	3,251	−2,792	−1,185	−246
1964–65 . .	−5,069	..	−4,076	−2,622	−4,695	−1,619	−18,083
1965–66 . .	−4,687	−8,135	−3,520	−6,834	− 10	−2,021	−25,208
			PER HEAD OF POPULATION ($)				
1961–62 . .	−1.58	0.01	0.14	1.04	−2.59	−2.03	−0.73
1962–63 . .	0.09	..	0.04	0.58	−1.96	−2.74	−0.14
1963–64 . .	0.13	−0.16	0.28	3.19	−3.55	−3.27	−0.02
1964–65 . .	−1.23	..	−2.52	−2.50	−5.83	−4.42	−1.63
1965–66 . .	−1.11	−2.55	−2.14	−6.34	−0.01	−5.47	−2.22

(*a*) *See* page 791.
Minus sign (−) indicates deficit.

State Loan Funds

The principal purpose of State public borrowing is to assist in financing the development of the resources of the country, e.g. the establishment and operation of railway systems and electricity undertakings, construction of roads and water and sewerage works, and improvements to harbours and rivers.

Statements relating to 'gross' loan expenditure are shown on page 802. Gross expenditure represents the amounts disbursed during each year. Details of 'net' loan expenditure, i.e. gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds, may be found in the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities*. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

Gross loan expenditure

Particulars of gross loan expenditure on works, services, etc., are shown in the following tables.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.: DETAILS
1965–66

($'000)

	N.S.W.	Vic.(*a*)	Qld	S.A.	W.A.	Tas.	Total
Public works and services—							
Railways	15,500	16,300	20,479	5,565	10,205	900	68,949
Tramways and omnibuses	..	..	..	..	300	..	300
Roads	4,147	2,390	(*b*) −634	310	..	4,446	30,849
Bridges		..	..	..	..		
Harbours and rivers	10,812	3,453	371	2,655	2,899		
Lights and lighthouses	..	..	..				
Water supply	19,601	17,953	−204	15,678	11,321	1,040	77,459
Sewerage		986	..	11,084		..	
Electricity supply	15,000	15,000	2,941	6,000	1,434	16,500	56,875
Gas supply	..	60	..	..	..	..	60
Public buildings	78,279	58,487	20,145	23,946	20,196	11,357	212,412
Loans and grants to local bodies	679	2,044	14,487	30	854	160	18,256
Housing(*c*)	56	1,803	4,300	700	1,152	..	8,011
Other public works, etc.	653	552	..	193	769	661	2,828
Primary production—							
Soldier settlement	205	64	..	..	..	..	269
Land for settlement	995	2,532	137	..	..	350	4,014
Advances to settlers	..	229	..	1,403	..	800	2,432
Water conservation, irrigation and drainage	16,967	..	6,713	2,185	1,518	..	27,384
Vermin-proof fencing	..	..	14	(*d*)	..	..	14
Agriculture	1,800	1,009	21	..	421	557	3,808
Agricultural Bank	..	..	2,202	..	..	..	2,202
Forestry	1,500	2,077	4,736	2,044	360	1,325	12,042
Mines and mineral resources	2,896	218	1,885	304	266	89	5,657
Other	1,304	2,508	..	741	40	104	4,697
Other purposes	..	(*e*) 3,181	..	2,136	911	888	7,117
Total	**170,395**	**130,848**	**77,595**	**74,974**	**52,646**	**39,177**	**545,635**

(*a*) Expenditure from loan funds and on account of loans; includes expenditure from loan funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (*b*) Represents transfer of liability on account of expenditure incurred in earlier years. The amount involved has been debited against the item Loans and grants to local bodies, and included in the expenditure shown for 1965–66. (*c*) Excludes expenditure from Commonwealth loans under Commonwealth-State Housing Agreement. (*d*) Included in item Advances to settlers. (*e*) Includes Rural Finance and Settlement Commission, for advances to rural industries, $2,574,000.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.
1961-62 TO 1965-66

Year	N.S.W.	Vic.(*a*)	Qld	S.A.	W.A.	Tas.	Total
GROSS LOAN EXPENDITURE ($'000)							
1961–62	135,040	106,834	61,377	61,310	41,545	32,191	438,297
1962–63	140,661	110,665	62,862	59,602	44,310	32,914	451,014
1963–64	148,897	117,750	69,647	63,496	47,270	34,988	482,048
1964–65	160,441	127,855	77,604	73,597	50,736	35,667	525,900
1965–66	170,395	130,848	77,595	74,974	52,646	39,177	545,635
PER HEAD OF POPULATION ($)							
1961–62	34.18	36.14	40.10	62.76	55.74	91.15	41.69
1962–63	35.01	37.74	40.47	59.86	56.27	91.91	42.14
1963–64	36.54	38.33	43.96	62.23	60.03	96.48	44.22
1964–65	38.78	40.79	48.05	70.34	63.00	97.39	47.35
1965–66	40.53	40.99	47.10	69.56	63.82	106.06	48.22

(*a*) *See* footnote (*a*) to previous table.

Total loan expenditure

The preceding tables do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. Summaries of the gross and net expenditure and repayments in respect of all loan purposes for the years 1963–64 to 1965–66 are shown in the next table.

STATE LOAN EXPENDITURE: SUMMARY, 1963-64 TO 1965-66

($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1963–64							
Works and services—							
Gross expenditure	148,897	117,750	69,647	63,496	47,270	34,988	482,048
Net expenditure	139,267	111,495	58,694	52,849	43,100	32,712	438,117
Repayments	9,629	6,255	10,953	10,647	4,170	2,276	43,931
Other than works, etc.(*a*)—							
Gross expenditure	−640	1,000	1,500	100	623	234	2,818
Net expenditure	−640	1,000	1,500	. .	520	193	2,573
Repayments	. .	. .	. .	100	(*b*)103	42	245
Total loan expenditure—							
Gross	**148,256**	**118,751**	**71,147**	**63,596**	**47,893**	**35,222**	**484,866**
Net	**138,627**	**112,496**	**60,194**	**52,849**	**43,620**	**32,905**	**440,690**
Repayments	**9,629**	**6,255**	**10,953**	**10,747**	**4,273**	**2,317**	**44,176**
1964–65							
Works and services—							
Gross expenditure	160,441	127,855	77,604	73,597	50,736	35,667	525,900
Net expenditure	148,320	120,267	65,421	62,554	46,779	33,306	476,646
Repayments	12,121	7,588	12,184	11,042	3,957	2,361	49,254
Other than works, etc.(*a*)—							
Gross expenditure	−3,562	611	1,500	43	293	113	−1,003
Net expenditure	−3,562	611	1,500	. .	179	46	−1,226
Repayments	. .	. .	. .	43	(*b*)114	67	223
Total loan expenditure—							
Gross	**156,879**	**128,465**	**79,104**	**73,639**	**51,029**	**35,780**	**524,898**
Net	**144,758**	**120,878**	**66,921**	**62,554**	**46,958**	**33,352**	**475,420**
Repayments	**12,121**	**7,588**	**12,184**	**11,085**	**4,071**	**2,428**	**49,477**
1965–66							
Works and services—							
Gross expenditure	170,395	130,848	77,595	74,974	52,646	39,177	545,635
Net expenditure	154,216	122,702	66,466	64,535	47,800	36,565	492,284
Repayments	16,179	8,146	11,129	10,439	4,846	2,612	53,352
Other than works, etc.(*a*)—							
Gross expenditure	589	1,036	. .	192	280	169	2,267
Net expenditure	589	1,036	1,500	791	143	9	4,069
Repayments	. .	. .	−1,500	−599	137	160	−1,802
Total loan expenditure—							
Gross	**170,984**	**131,884**	**77,595**	**75,167**	**52,926**	**39,346**	**547,902**
Net	**154,806**	**123,738**	**67,966**	**65,326**	**47,943**	**36,573**	**496,352**
Repayments	**16,179**	**8,146**	**9,629**	**9,840**	**4,983**	**2,773**	**51,550**

(*a*) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (*b*) From Consolidated Revenue Fund.

Information relating to the government securities and borrowings on issue on behalf of the States is given in the division on Government Securities on Issue: Commonwealth and States (*see* page 808).

Advances to settlers

A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory may be found in earlier issues of the Year Book (*see* List of Special Articles, etc., preceding General Index to this issue). The summaries of loans and advances under State authorities in the following paragraphs are compiled from returns supplied by the State Government lending agencies concerned. This information was previously included in the former chapter Land Settlement and Tenure (*see* Year Book No. 52, page 86). A summary for Western Australia is not included, as practically the only governmental funds being made available are Commonwealth (*see* pages 775–6). The figures include transactions in lands acquired under closer and soldier settlement schemes, but exclude balances owing on former Crown lands sold on the conditional purchase, etc., system. Advances made by general banking institutions in the course of their ordinary business are not included. For information on such advances *see* Chapter 19, Private Finance.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of re-appraisements of land values and the writing down of debts. In general they include both principal and interest outstanding.

In New South Wales and Victoria expenditure on the acquisition, development and improvement of land for war service land settlement is provided for by the States, and particulars thereof are included in the respective summaries. In Queensland no money is paid for the value of the land acquired, most land being occupied on lease from the Government, but advances in respect of improvements are included. In the other States this expenditure is provided for by the Commonwealth, and particulars are included on page 775.

Loans (Agricultural Occupations) under the *Re-establishment and Employment Act* 1945–1966 and certain advances for the purchase of wire-netting and for other purposes made from finance provided by the Commonwealth are included in the summaries following.

ADVANCES TO SETTLERS, ETC.: NEW SOUTH WALES, TO 30 JUNE 1966

Advances, etc.	Advances, etc., made during 1964–65	Advances, etc., made during 1965–66	Total advances, etc., to 30 June 1966	Balances outstanding at 30 June 1966	
				Number	Amount
	$'000	$'000	$'000		$'000
Department of Lands—					
Closer land settlement	1,243	1,005	(*a*) 38,538	6,072	(*b*) 3,078
Soldier settlers, 1914–18 War	..	..	6,392	7	4
1939–45 War	38	61	29,554	2,066	3,928
Soldier land settlement—acquisition, development and improvement of land, War Service Land Settlement Agreement Act	3	144	57,830	1,854	(*c*) 49,862
Wire netting	..	..	109	..	..
Prickly pear	95	58	1,265	326	35
Rural Bank—					
General Bank Department (including Commonwealth Re-establishment Scheme advances)	21,268	15,643	281,092	7,569	46,849
Government Agency Department—					
Rural Industries Agency	1,921	6,342	28,063	2,648	7,983
advances to Settlers Agency (including unemployment relief and dairy promotion advances)	647	756	12,258	1,955	2,677
Rural Reconstruction Agency	556	429	33,619	649	4,661
Irrigation Agency—					
Shallow bores	195	213	5,364	645	1,240
Farm water supplies	453	722	4,443	1,209	2,653
Soil conservation	89	128	658	310	437
Murrumbidgee Irrigation Area—tree mortality advances	6	..	806	104	588
Rivers and foreshores improvement	..	..	10	19	1
Irrigation areas	865	154	n.a.	12,213	8,971
Government Guarantee Agency	..	..	451	..	..
Closer Settlement Agency	..	..	336	26	49
Total	**27,370**	**25,655**	**(*d*)500,788**	**37,672**	**133,016**

(*a*) In addition, the sum of $3,874,000 had been expended to 30 June 1966 on subdivision, maintenance, improvement, and disposal of land acquired for closer settlement. (*b*) Excludes an amount of $9.369,000 capitalised to 30 June 1966 on conversion into leasehold under the Closer Settlement Amendment (Conversion) Act, 1943 and capital values of leasehold tenures, $6 535 000. (*c*) Includes capital value of 2,627 Closer Settlement Leases, $39,589,000, and unpaid balances on 1,854 Structural Improvement Accounts, $10,190,000. (*d*) Incomplete.

ADVANCES TO SETTLERS, ETC.: VICTORIA, TO 30 JUNE 1966

Advances, etc.	Advances, etc., made during 1964–65	Advances, etc., made during 1965–66	Total advances, etc., to 30 June 1966	Balances outstanding at 30 June 1966	
				Number	Amount
	$'000	$'000	$'000		$'000
State Savings Bank, Crédit Foncier—					
Civilians	302	337	25,696	459	1,705
Discharged soldiers	..	..	1,698	1	1
Treasurer—					
Cool stores, canneries, etc.	240	960	4,886	(a) 1	2,788
Department of Lands and Survey—					
Closer settlement settlers and soldier settlers	..	..	(b) 93,810	1,307	2,630
Cultivators of land	..	..	4,927	20	8
Wire netting	1	..	1,478	34	10
Rural Finance and Settlement Commission—					
For soldier settlement—					
Purchase of land, and development and improvement of holdings	34	48	(c) 93,321	n.a.	(d) 43,011
Advances for—					
Development of single unit farms	..	..	23,917	1,345	9,558
Improvements, stock, etc.	44	15	12,305	198	142
Other advances	..	..	3,594	212	61
For general land settlement—					
Purchase of land	29	278	1 582	n.a.	(f) 18,655
Development and improvement of holdings	2,151	2,030	(e) 18,512	n.a.	
Improvements, stock, etc.	257	246	877	262	363
Total	3,058	3,914	286,603	(g) 3,839	78,932

(a) Number of companies. (b) Represents consolidated debts of settlers (Section 30, Act 4091). (c) Includes liability for advances for settlers' leases $41,458,000. (d) After allowing an amount of $30,772,000, representing excess acquisition, development and improvement costs, which has been written off. Includes $48,400,000 outstanding on contracts of sale for disposal of unsuitable land. (e) Includes liability for advances for settlers' leases $3,818,000. (f) Includes amounts owing on contracts for sale of unsuitable land, $84,000, after writing off $933,000 excess acquisition and development costs. (g) Incomplete.

ADVANCES TO SETTLERS, ETC.: QUEENSLAND, TO 30 JUNE 1966

Advances, etc.	Advances, etc., made during 1964–65	Advances, etc., made during 1965–66	Total advances, etc., to 30 June 1966	Balances outstanding at 30 June 1966	
				Number	Amount
	$'000	$'000	$'000		$'000
Co-ordination of Rural Advances and Agricultural Bank Acts	11,684	10,787	122,428	6,458	53,875
Discharged soldiers' settlement(a)	..	..	4,936	151	59
Water facilities	..	..	116	..	..
Wire netting, etc.	..	..	2,039	..	..
Seed wheat and barley	3	2	(b) 367	n.a.	25
Drought relief	79	3,048	5,961	947	3,153
War Service Land Settlement	193	154	10,275	181	1,774
Financial Arrangements and Development Aid Acts and prior Acts	..	..	2,368	..	..
Irrigation	..	..	110	..	..
Farmers' Assistance (Debt Adjustment) Acts	..	..	2,111	9	19
Commonwealth Re-establishment and Employment Act	..	..	1,748	14	10
Water Supplies Assistance Act	784	920	3,710	793	3,073
Brigalow and Other Lands Development Act	1,445	892	3,490	68	3,417
Soil Conservation Act	..	6	6	5	6
Total	14,188	15,810	159,665	(c) 8,626	65,412

(a) Includes advances to group settlers through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Incomplete.

South Australia

Particulars of Primary Producers Assistance, comprising advances in drought-affected areas and under Farmers Relief Acts, included in the following table for earlier years are now omitted, as the amounts ($13,165,000) were written off as irrecoverable as at 30 June 1966.

ADVANCES TO SETTLERS, ETC.: SOUTH AUSTRALIA, TO 30 JUNE 1966

Advances, etc.	Advances, etc., made during 1964–65	Advances, etc., made during 1965–66	Total advances, etc., to 30 June 1966	Balances outstanding at 30 June 1966	
				Number	Amount
	$'000	$'000	$'000		$'000
Department of Lands—					
Advances to soldier settlers	..	..	10,144	15	334
Advances to blockholders	..	..	83	..	..
Advances under Closer Settlement Acts	..	..	5,461	420	892
Settlement of Returned Service Personnel, 1939–45 War	2,883	2,137	29,099	1,090	12,749
Advances under Crown Lands Development Act	34	..	986	76	716
Irrigation Branch—					
Advances to soldier settlers	..	..	2,096	100	245
State Bank of South Australia—					
Advances to settlers for improvements	141	196	3,442	370	1,177
Advances under Vermin and Fencing Acts	3	7	2,885	79	77
Advances under Loans to Producers Act	1,297	1,359	11,084	199	7,768
Commonwealth Re-establishment and Employment Act	..	..	1,655	170	130
Total	4,358	3,699	66,935	2,519	24,088

Western Australia

The operations prior to 1945 covered in this section related to moneys made available through, or by, the old Agricultural Bank and other Government Departments for the purpose of agricultural development. On 1 October 1945, however, the Agricultural Bank was reconstituted as the Rural and Industries Bank of Western Australia, and was given authority to operate in similar manner to the associated banks. Certain securities in the books of the old bank were taken over by the general banking division of the new bank, and the clients concerned then operated with privileges and obligations similar to those provided by other banking institutions. The majority of the remaining securities, also, were eventually transferred.

At present, very limited funds are being made available by the State Government for advances for agricultural development, the bulk of the moneys for this purpose being provided by the Commonwealth Government under the War Service Land Settlement and Commonwealth Re-establishment and Employment Acts. Particulars of this expenditure are shown on pages 775–6.

Tasmania

Particulars of advances made for the purchase of land for closer and soldier land settlement included in this table for earlier years are now omitted, as they are not regarded as outstanding advances by the Department of Agriculture; the areas so purchased have been leased on 99-year terms with an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS, ETC.: TASMANIA, TO 30 JUNE 1966

Advances, etc.	Advances, etc., made during 1964–65	Advances, etc., made during 1965–66	Total advances, etc., to 30 June 1966	Balances outstanding at 30 June 1966	
				Number	Amount
	$'000	$'000	$'000		$'000
Agricultural Bank—					
State Advances Act and Rural Credits	921	715	11,651	1,188	3,729
Commonwealth Re-establishment and Employment Act	..	..	815	87	76
Primary Producers' Relief Act 1947	..	..	596	15	6
1960	18	..	18	3	3
1962	19	..	19	7	13
Minister for Agriculture—					
Soldier settlers—					
Advances	13	28	2,121	159	107
Closer settlers—					
Advances	45	21	402	68	386
Total	1,016	764	15,622	1,527	4,320

Northern Territory

During the year 1965–66 thirty-five advances totalling $189,608 were approved and advances made totalled $176,065. At 30 June 1966 the balance outstanding from seventy-six settlers, including interest, was $683,701.

COMMONWEALTH AND STATE FINANCE

Consolidated Revenue Fund expenditure and receipts

The following table shows the aggregate expenditure and receipts of the Consolidated Revenue Funds of the Commonwealth and States for each of the years 1961–62 to 1965–66. In the table the combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other divisions of this chapter. The items excluded from the total figures are: payments made by the Commonwealth to the States and included in the State Consolidated Revenue Funds on account of financial assistance grants in 1961–62 to 1965–66, interest under the Financial Agreement, special grants, special financial assistance, grants to universities, cattle tick control, Tuberculosis Act capital expenditure, National Welfare Fund payments, and estimated payments of pay-roll tax by the States to the Commonwealth. There are other relatively minor payments for which adjustments have not been made, and the adjusted figures are therefore still slightly overstated.

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUND EXPENDITURE AND RECEIPTS, 1961–62 TO 1965–66

Year	Expenditure			Receipts		
	Common-wealth	States	Total	Common-wealth	States	Total
	$'000	$'000	$m	$'000	$'000	$m
1961–62 . . .	3,283,084	1,616,790	4,212.8	3,283,084	1,609,133	4,205.2
1962–63 . . .	3,370,772	1,695,742	4,347.5	3,370,772	1,694,262	4,346.1
1963–64 . . .	3,809,376	1,829,333	4,885.4	3,809,376	1,829,087	4,885.1
1964–65 . . .	4,418,178	1,965,133	5,605.2	4,418,178	1,947,050	5,587.2
1965–66 . . .	4,879,201	2,120,259	6,105.4	4,879,201	2,095,051	6,080.2

Taxation collections

The following table shows the combined Commonwealth and State taxation collections and the amount per head of population for the years 1961–62 to 1965–66. Taxation collections by the State Governments which are not paid into the Consolidated Revenue Funds are included.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS BY TYPE OF TAX, 1961–62 TO 1965–66

Tax	1961–62	1962–63	1963–64	1964–65	1965–66
NET COLLECTIONS ($'000)					
Income taxes	1,656,300	1,621,181	1,874,484	2,295,607	2,549,695
Customs and excise duty . .	701,612	759,005	815,036	899,722	1,022,970
Sales tax	297,648	313,062	325,189	362,857	370,044
Motor taxes	103,216	115,518	136,714	153,270	172,581
Pay-roll tax	121,943	126,510	136,443	150,078	161,943
Estate, probate and succession duties	109,224	115,727	130,961	132,974	130,581
Stamp duties, n.e.i. . . .	73,056	81,757	93,080	104,436	109,593
Land tax	45,321	49,410	55,134	62,765	69,570
Racing	18,230	21,198	23,361	27,340	32,309
Liquor licences	19,722	22,203	23,784	26,179	27,369
Licences, n.e.i. and other taxes(a)	41,740	48,410	55,351	68,127	77,318
Total—					
Commonwealth	*2,833,049*	*2,880,918*	*3,218,838*	*3,787,030*	*4,185,338*
States	*354,963*	*393,062*	*450,701*	*496,326*	*538,637*
Grand total . . .	**3,188,012**	**3,273,980**	**3,669,539**	**4,283,356**	**4,723,975**

(a) Includes arrears of State income taxes.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS BY TYPE OF TAX, 1961–62 TO 1965–66—*continued*

Tax	1961–62	1962–63	1963–64	1964–65	1965–66
PER HEAD OF POPULATION ($)					
Income taxes	156.21	150.10	170.25	204.49	222.79
Customs and excise duties	66.17	70.27	74.03	80.15	89.39
Sales tax	28.07	28.98	29.54	32.32	32.33
Pay-roll tax	11.50	11.71	12.39	13.37	14.15
Estate, probate and succession duties	10.30	10.71	11.89	11.85	11.41
Motor taxes	9.73	10.70	12.42	13.65	15.08
Stamp duties, n.e.i.	6.89	7.57	8.45	9.30	9.58
Land tax	4.27	4.57	5.01	5.59	6.08
Racing	1.72	1.96	2.12	2.44	2.82
Liquor taxes	1.86	2.06	2.16	2.33	2.39
Licences, n.e.i., and other taxes(*a*)	3.94	4.48	5.03	6.07	6.76
Total—					
Commonwealth	*267.20*	*266.73*	*292.35*	*337.35*	*365.72*
States	*33.77*	*36.73*	*41.34*	*44.68*	*47.61*
Grand total	**300.67**	**303.12**	**333.29**	**381.56**	**412.78**

(*a*) Includes arrears of State income taxes.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES

For the following reasons, Government Securities on Issue, as set out in the tables in this division, may not be aggregated without adjustment to indicate what is sometimes described as the 'public debt' or 'net public debt' of the Commonwealth and State Governments. There are forms of debt not evidenced by the issue of securities. Again, some of the securities included in the tables are held by the Governments themselves. For example, a State Government may hold temporarily, or even for long periods, securities issued by the Commonwealth Government. The Commonwealth Government itself, through such institutions as the National Debt Commission, or through the Trust Funds, holds large investments in securities issued, either directly by itself or on behalf of the States. In addition, some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth Government. From the point of view of the aggregate net debt of the Commonwealth and the States, it would thus involve duplication if the sum of the securities on issue were to be regarded as representing the 'net public debt'.

Under the Financial Agreement between the Commonwealth and the States in 1927 the Commonwealth Government accepted responsibility for the securities of the State Governments then on issue, and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth securities for all money borrowed. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf, and the securities are redeemed from the National Debt Sinking Fund to which both the Commonwealth and State Governments make contributions.

In the statistical tables relating to Government securities, details of securities on issue, annual interest liability and average rate of interest liability, except on pages 812–14, are shown in the currencies in which they are repayable or payable respectively. Australian currency equivalents for overseas loans have been calculated using International Monetary Fund par rates of exchange (and the calculated equivalent for Swiss francs) ruling at 30 June in each year shown. Rates of exchange to $A at 30 June 1966 were as follows: £Sterling, 0.4000; United States dollars, 1.1200; Canadian dollars, 1.2108; Swiss francs, 4.8978; Netherlands guilders, 4.0544; German Deutsche marks, 4.4800.

The full text of the original Financial Agreement between the Commonwealth and the States was given in Year Book No. 31, page 21, a summary of the original Agreement as affected by the subsequent Agreements in later issues up to No. 37 (*see* pages 685–90), and a summary of the main provisions in further issues up to No. 50 (*see* pages 952–3).

Government securities on issue: Commonwealth and States

Government securities on issue, annual interest payable and average rate of interest

In the following tables, details are given of government securities on issue on account of the Commonwealth and States, annual interest payable and average rates of interest.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1966

	Currency in which repayable							Total—Australian currency equivalents(*a*)
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
	$A'000	£Stg'000	$US '000	$Can '000	Sw. fr. '000	f.'000	D.M. '000	$A'000
For Commonwealth purposes	2,520,779	73.398	380,067	49,191	194,088	7,150	84,596	3,144,518
On account of States—								
New South Wales	2,180,713	102,257	96,274	4,625	15,833	10,383	..	2,531,928
Victoria	1,626,901	42.202	46,376	3.720	12,732	8,346	..	1.781.544
Queensland	836,050	40.735	39,496	1.866	6.391	4,250	..	977.046
South Australia	866,183	31,211	24,876	1.979	6,774	4,191	..	970 473
Western Australia	632,794	32,398	15,613	1,420	4.863	3,264	..	730.700
Tasmania	471,045	6,867	13,975	1,080	3,703	2,416	..	502,932
Total, States	*6,613,686*	*255,670*	*236,610*	*14,690*	*50,296*	*32,850*	..	*7,494,623*
Total, Commonwealth and States—								
Stock and bonds	8,195,101	323,952	347,462	27,875	240,000	40,000	..	9,397,109
Treasury bills, internal	681.500	..	..	..	..	..	..	681 500
Treasury notes	115.996	..	..	..	..	..	..	115 996
Treasury bills, public	80,000	..	..	..	..	..	..	80.000
International Bank loans	..	..	187.301	36,006	4,384	..	84,596	216.749
Commonwealth notes	..	..	81,914	..	..	..	..	73.137
Debentures	54,802	..	..	..	..	..	..	54,802
Balance of securities of States taken over by Commonwealth and still represented by State securities	..	4,165	..	..	..	..	..	10.413
Other	7,065	948	..	..	..	..	..	9,435
Grand total—								
Currencies in which repayable	9,134,464	329,067	616.677	63.881	244.384	40.000	84,596	..
Australian currency equivalents(*a*) $A'000	9,134,464	822,667	550,604	52,759	49.896	9,866	18,884	10639141

(*a*) For rates of exchange to $A ruling at 30 June 1966 *see* page 808. (*b*) State securities issued by the Government of Western Australia to meet the costs of acquisition of the Midland Railway Company of Western Australia Ltd.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES ANNUAL INTEREST PAYABLE, 30 JUNE 1966

	Currency in which payable							Total—Australian currency equivalents(*a*)
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
	AMOUNT							
	$A'000	£Stg'000	$US '000	$Can '000	Sw. fr. '000	f.'000	D.M. '000	$A'000
For Commonwealth purposes	91,723	3,509	18,955	2,275	7,973	357	4,801	122,087
On account of States—								
New South Wales	103.164	4.690	4.803	266	712	519	..	119.668
Victoria	77.879	1.858	2.355	214	573	417	..	85.023
Queensland	38.673	1.556	1.939	107	287	213	..	44.493
South Australia	41.208	1.120	1,271	114	305	210	..	45,350
Western Australia	29.986	1,114	776	82	219	163	..	33,617
Tasmania	22.468	295	744	62	167	121	..	23,987
Total, States	*313,379*	*10,632*	*11,889*	*845*	*2,263*	*1,643*	..	*352,138*
Grand total—								
Currencies in which repayable	405.102	14.141	30,844	3,120	10,236	2,000	4.801	..
Australian currency equivalents(*a*) $A'000	405.102	35,353	27,539	2.576	2.090	493	1,072	474.225

(*a*) For rates of exchange to $A ruling at 30 June 1966 *see* page 808.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES ANNUAL INTEREST PAYABLE, 30 JUNE 1966—*continued*

	Currency in which payable							Total—Australian currency equivalents(*a*)
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
AVERAGE RATE OF INTEREST LIABILITY								
(Per cent)								
For Commonwealth purposes	3.64	4.78	4.99	4.63	4.11	5.00	5.68	3.88
On account of States—								
New South Wales . .	4.73	4.59	4.99	5.75	4.50	5.00	..	4.73
Victoria	4.79	4.40	5.08	5.75	4.50	5.00	..	4.77
Queensland . . .	4.63	3.82	4.91	5.75	4.50	5.00	..	4.55
South Australia . .	4.76	3.59	5.11	5.75	4.50	5.00	..	4.67
Western Australia . .	4.74	3.44	4.97	5.75	4.50	5.00	..	4.60
Tasmania . . .	4.77	4.30	5.32	5.75	4.50	5.00	..	4.77
Total, States . .	*4.74*	*4.16*	*5.02*	*5.75*	*4.50*	*5.00*	..	*4.70*
Grand total . .	4.43	4.30	5.00	4.88	4.19	5.00	5.68	4.46

(*a*) For rates of exchange to $A ruling at 30 June 1966, *see* page 808.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1962 TO 1966

		30 June—				
		1962	1963	1964	1965	1966
For Commonwealth purposes—						
Australian currency .	$A'000	2,560,948	2,518,728	2,568,714	2,512,888	2,520,779
Sterling	£Stg'000	75,188	77,327	79,393	76,253	73,398
United States dollars .	$US'000	315,617	362,025	351,347	368,641	380,067
Canadian dollars . .	$Can'000	51,627	50,948	50,376	49,665	49,191
Swiss francs . . .	Sw. fr.'000	209,658	196,556	194,288	194,288	194,088
Netherlands guilders . .	f.'000	7,150	7,150	7,150	7,150	7,150
German Deutsche marks .	D.M.'000	6,355	6,355	37,901	84,596	84,596
Total, Commonwealth—Australian currency equivalents(a) .	$A'000	*3,119,350*	*3,120,672*	*3,172,396*	*3,133,997*	*3,144,518*
On account of States—						
Australian currency .	$A'000	5,097,400	5,393,340	5,749,642	6,182,321	6,613,686
Sterling	£Stg'000	266,161	273,843	284,795	268,670	255,670
United States dollars .	$US'000	187,701	227,930	220,966	229,884	236,610
Canadian dollars . .	$Can'000	16,765	16,668	16,065	15,633	14,690
Swiss francs . . .	Sw. fr.'000	50,296	50,296	50,296	50,296	50,296
Netherlands guilders . .	f.'000	32,850	32,850	32,850	32,850	32,850
Total, States—Australian currency equivalents(a) . . .	$A'000	*5,962,610*	*6,313,596*	*6,690,562*	*7,090,533*	*7,494,623*
Total, Commonwealth and States—Australian currency equivalents(*a*)	$A'000	9,081,960	9,434,268	9,862,958	10,224,530	10,639,141

(*a*) For rates of exchange to $A ruling at 30 June 1966, *see* page 808.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES ANNUAL INTEREST PAYABLE, 30 JUNE 1962 TO 1966

		30 June—				
		1962	1963	1964	1965	1966
AMOUNT						
For Commonwealth purposes—						
Australian currency	$A'000	85,290	84,550	89,405	89,540	91,723
Sterling	£Stg'000	3,386	3,504	3,714	3,608	3,509
United States dollars	$US'000	15,053	17,711	17,334	18,437	18,955
Canadian dollars	$Can'000	2,380	2,352	2,327	2,297	2,275
Swiss francs	Sw. fr.'000	8,675	8,080	7,982	7,982	7,973
Netherlands guilders	f.'000	357	357	357	358	357
German Deutsche marks	D.M.'000	302	302	2,116	4,801	4,801
Total, Commonwealth—Australian currency equivalents(a)	$A'000	*111,090*	*112,870*	*118,280*	*119,709*	*122,087*
On account of States—						
Australian currency	$A'000	225,886	238,128	255,105	283,118	313,379
Sterling	£Stg'000	10,328	10,917	11,529	11,034	10,632
United States dollars	$US'000	8,976	11,227	10,889	11,428	11,889
Canadian dollars	$Can'000	964	959	924	899	845
Swiss francs	Sw. fr.'000	2,263	2,263	2,263	2,263	2,263
Netherlands guilders	f.'000	1,643	1,643	1,643	1,643	1,643
Total, States—Australian currency equivalents(a)	$A'000	*261,326*	*277,106*	*295,278*	*322,515*	*352,138*
Total, Commonwealth and States—Australian currency equivalents(a)	**$A'000**	**372,416**	**389,976**	**413,558**	**442,223**	**474,225**
AVERAGE RATE OF INTEREST LIABILITY (Per cent)						
For Commonwealth purposes—						
Australian currency		3.33	3.36	3.48	3.56	3.64
Sterling		4.50	4.53	4.68	4.73	4.78
United States dollars		4.77	4.89	4.93	5.00	4.99
Canadian dollars		4.61	4.62	4.62	4.62	4.63
Swiss francs		4.14	4.11	4.11	4.11	4.11
Netherlands guilders		5.00	5.00	5.00	5.00	5.00
German Deutsche marks		4.75	4.75	4.58	5.68	5.68
Total, Commonwealth—Australian currency equivalents(a)		*3.56*	*3.62*	*3.73*	*3.82*	*3.88*
On account of States—						
Australian currency		4.43	4.42	4.44	4.58	4.74
Sterling		3.88	3.99	4.05	4.11	4.16
United States dollars		4.79	4.93	4.93	4.97	5.02
Canadian dollars		5.75	5.75	5.75	5.75	5.75
Swiss francs		4.50	4.50	4.50	4.50	4.50
Netherlands guilders		5.00	5.00	5.00	5.00	5.00
Total, States—Australian currency equivalents(a)		*4.38*	*4.39*	*4.41*	*4.55*	*4.70*
Total, Commonwealth and States—Australian currency equivalents(a)		**4.10**	**4.13**	**4.19**	**4.33**	**4.46**

(a) For rates of exchange to $A ruling at 30 June 1966 *see* page 808.

Government securities on issue and annual interest payable—Australian currency

In the following tables, details, including per capita figures, are shown in Australian currency equivalents calculated at rates of exchange ruling at 30 June of each of the years concerned.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1966—AUSTRALIAN CURRENCY

	Currency in which repayable							Total
	Australian currency	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
SECURITIES ON ISSUE ($A'000)								
For Commonwealth purposes—								
Treasury bills, internal	681,500	..	..	..	..	..	..	681,500
Other short-term	195,996	..	..	..	..	..	..	195,996
Other	1,643,283	183,492	339,345	40,627	39,627	1,764	18,884	2,267,022
Total, Commonwealth	*2,520,779*	*183,492*	*339,345*	*40,627*	*39,627*	*1,764*	*18,884*	*3,144,518*
On account of States—								
New South Wales	2,180,713	255,642	85,959	3,820	3,233	2,561	..	2,531,928
Victoria	1,626,901	105,505	41,407	3,072	2,600	2,059	..	1,781,544
Queensland	836,050	101,838	35,264	1,541	1,305	1 048	..	977,046
South Australia	866,183	78,028	22,211	1,634	1,383	1,034	..	970,473
Western Australia	632,794	80,995	13,940	1,173	993	805	..	730,700
Tasmania	471,045	17,167	12,478	892	755	595	..	502,932
Total, States	*6,613,686*	*639,175*	*211,259*	*12,132*	*10,269*	*8,102*	..	*7,494,623*
Total, Commonwealth and States—								
Treasury bills, internal	681,500	..	..	..	..	..	..	681,500
Other short-term	195,996	..	..	..	..	..	..	195,996
Other	8,256,969	822,667	550,604	52,759	49,896	9,866	18,884	9,761,645
Grand total	**9,134,464**	**822,667**	**550,604**	**52,759**	**49,896**	**9,866**	**18,884**	**10,639,141**
PER HEAD OF POPULATION ($A)								
For Commonwealth purposes	218.42	15.90	29.40	3.52	3.43	0.15	1.64	272.47
On account of States—								
New South Wales	515.40	60.42	20.32	0.90	0.76	0.61	..	598.41
Victoria	505 59	32.79	12.87	0 95	0 81	0.64	..	553.65
Queensland	503.27	61.30	21.23	0 93	0.79	0 63	..	588 14
South Australia	794.14	71 54	20 36	1.50	1.27	0 95	..	889.75
Western Australia	757 32	96 93	16 68	1.40	1.19	0.96	..	874.49
Tasmania	1,268.92	46.25	33.61	2.40	2.03	1.60	..	1,354.82
Total, States	*579.76*	*56.03*	*18.52*	*1.06*	*0.90*	*0.71*	..	*656.98*
Total Commonwealth and States	791.49	71.28	47.71	4.57	4.32	0.85	1.64	921.87
ANNUAL INTEREST PAYABLE ($A'000)								
For Commonwealth purposes	91,723	8,773	16,924	1,879	1,628	88	1,072	122,087
On account of States—								
New South Wales	103,164	11,724	4,288	220	145	127	..	119,668
Victoria	77,879	4,644	2,103	177	117	103	..	85,023
Queensland	38,673	3,890	1,731	88	59	52	..	44,493
South Australia	41,208	2,800	1,135	93	62	52	..	45,350
Western Australia	29,986	2,785	693	68	45	40	..	33,617
Tasmania	22,468	737	665	51	34	30	..	23,987
Total, States	*313,379*	*26,580*	*10,615*	*697*	*462*	*405*	..	*352,138*
Total, Commonwealth and States	405,102	35,353	27,539	2,576	2,090	493	1,072	474,225

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1966—AUSTRALIAN CURRENCY—*continued*

	Currency in which repayable—							Total
	Australian	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
ANNUAL INTEREST PAYABLE PER HEAD OF POPULATION ($A)								
For Commonwealth purposes	7.95	0.76	1.47	0.16	0.14	0.01	0.09	10.58
On account of States—								
New South Wales	24.38	2.77	1.01	0.05	0.03	0.03	..	28.28
Victoria	24.20	1.44	0.65	0.06	0.04	0.03	..	26.42
Queensland	23.28	2.34	1.04	0.05	0.04	0.03	..	26.78
South Australia	37.78	2.57	1.04	0.09	0.06	0.05	..	41.58
Western Australia	35.89	3.33	0.83	0.08	0.05	0.05	..	40.23
Tasmania	60.53	1.99	1.79	0.14	0.09	0.08	..	64.62
Total, States	*27.47*	*2.33*	*0.93*	*0.06*	*0.04*	*0.04*	..	*30.87*
Total, Commonwealth and States	35.10	3.06	2.39	0.22	0.18	0.04	0.09	41.09

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE, 30 JUNE 1962 TO 1966—AUSTRALIAN CURRENCY

($A'000)

	30 June—				
	1962	1963	1964	1965	1966
SECURITIES ON ISSUE					
For Commonwealth purposes—					
Treasury Bills, Internal	481,800	559,600	599,000	632,400	681,500
Other short-term	416,000	385,076	330,570	196,432	195,996
Other	2,221,550	2,175,996	2,242,826	2,305,165	2,267,022
Total, Commonwealth	*3,119,350*	*3,120,672*	*3,172,396*	*3,133,997*	*3,144,518*
On account of States—					
New South Wales	2,056,616	2,167,012	2,283,382	2,407,364	2,531,928
Victoria	1,392,540	1,482,260	1,577,722	1,679,339	1,781,544
Queensland	765,770	811,274	862,774	919,706	977,046
South Australia	780,646	824,186	870,504	919,446	970,473
Western Australia	578,760	613,396	652,796	691,660	730,700
Tasmania	388,278	415,468	443,384	473,019	502,932
Total, States	*5,962,610*	*6,313,596*	*6,690,562*	*7,090,533*	*7,494,623*
Total, Commonwealth and States—					
Treasury bills, internal	481,800	559,600	599,000	632,400	681,500
Other short-term	416,000	385,076	330,570	196,432	195,996
Other	8,184,160	8,489,592	8,933,388	9,395,698	9,761,645
Grand total	**9,081,960**	**9,434,268**	**9,862,958**	**10,224,530**	**10,639,141**

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE, 30 JUNE 1962 TO 1966—AUSTRALIAN CURRENCY—*continued*

($A'000)

	30 June—				
	1962	1963	1964	1965	1966
ANNUAL INTEREST PAYABLE					
For Commonwealth purposes .	111,090	112,870	118,280	119,708	122,087
On account of States—					
New South Wales . . .	90,084	95,314	101,280	110,250	119,668
Victoria	62,422	66,350	70,890	77,650	85,023
Queensland	32,670	34,524	36,920	40,492	44,493
South Australia . . .	34,172	35,974	38,114	41,534	45,350
Western Australia . . .	24,914	26,420	28,284	30,886	33,617
Tasmania	17,064	18,524	19,790	21,706	23,987
Total, States . . .	*261,326*	*277,106*	*295,278*	*322,515*	*352,138*
Total, Commonwealth and States	**372,416**	**389,976**	**413,558**	**442,223**	**474,225**

Government securities on issue at each rate of interest and according to earliest and latest years of maturity

For details of securities on issue for Commonwealth and State purposes at 30 June 1966 at each rate of interest and classified according to the earliest and latest years of maturity *see* the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities.*

Short-term securities on issue

Particulars of the short-term securities (Treasury bills, Treasury notes and seasonal securities) of the Commonwealth and States in Australia at intervals from 30 June 1962 to 30 June 1966 are shown in the following table. These securities are included in the government securities on issue as shown elsewhere. No short-term securities have been raised overseas since September 1956, when all such securities held in London were expatriated to Australia.

GOVERNMENT SHORT-TERM SECURITIES ON ISSUE MATURING IN AUSTRALIA(*a*) COMMONWEALTH AND STATES, 30 JUNE 1962 TO 30 JUNE 1966

($A'000)

Date	Commonwealth		States(*b*)	Total
	Treasury bills	Treasury notes		
30 June 1962	416,000	. .	. .	416,000
,, ,, 1963	246,000	139,076	. .	385,076
,, ,, 1964	178,000	152,570	. .	330,570
30 September 1964 . . .	242,000	183,996	10,000	435,996
31 December 1964	432,000	203,750	26,000	661,750
31 March 1965	80,000	394,846	24,000	498,846
30 June 1965	116,000	80,432	. .	196,432
30 September 1965 . . .	272,000	125,146	4,000	401,146
31 December 1965 . . .	550,000	218,574	22,000	790,574
31 March 1966	383,000	255,434	19,000	657,434
30 June 1966	80,000	115,996	. .	195,996

(*a*) Excludes overdrafts and internal Treasury bills. (*b*) Treasury bills.

The Treasury bill discount rate in Australia has remained at 1 per cent since 29 July 1952. In 1962–63, daily issues of Treasury notes replaced those of seasonal securities which had, during the three previous financial years, all matured in the course of the same financial year in which they were issued. Treasury notes with a currency of thirteen weeks were issued in multiples of $2,000 over the minimum subscription of $10,000, and increases in value were subject to the usual income tax rebate of ten cents in the dollar. In 1965–66 the issue prices of Treasury notes were 98.95 per cent from July to February and 98.87 per cent from February to June, and yields varied accordingly from 4.254 per cent to 4.58 per cent.

Government securities on issue on account of the States; local government and semi-governmental authority securities on issue

In some States certain public utilities, such as tramways, water supply and sewerage, harbour services, etc., are controlled by boards or trusts, which in addition to receiving advances from the central government raise loans by borrowing on their own behalf, while in other States these services are controlled by the central government. Direct comparisons between States of the securities on issue on account of the several States should therefore be made with caution. The table following shows for 1960–61 to 1964–65 particulars of the securities on issue on account of the States, the securities on issue by local government and semi-governmental authorities, and the aggregates of these.

GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES: LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITY SECURITIES ON ISSUE 30 JUNE 1961 TO 1965

	State	Local government (*a*)	Semi-governmental (*a*)	Total
SECURITIES ON ISSUE ($A'000)(*b*)				
30 June 1965—				
New South Wales	2,407,364	233,232	785,848	3,426,443
Victoria	1,679,339	149,545	1,316,345	3,145,229
Queensland	919,706	273,969	243,419	1,437,093
South Australia	919,446	26,809	113,843	1,060,098
Western Australia	691,660	44,043	68,816	804,519
Tasmania	473,019	42,375	49,639	565,033
Total, 30 June 1965	7,090,533	769,972	2,577,909	10,438,415
1964	6,690,562	709,030	2,384,658	9,784,250
1963	6,313,596	642,659	2,195,150	9,151,405
1962	5,962,610	581,044	2,003,985	8,547,638
1961	5,630,480	517,565	1,842,494	7,990,539
PER HEAD OF POPULATION ($A)(*b*)				
30 June 1965—				
New South Wales	577.30	55.93	188.45	821.68
Victoria	531.04	47.29	416.25	994.58
Queensland	563.41	167.83	149.12	880.36
South Australia	864.33	25.20	107.02	996.55
Western Australia	850.28	54.14	84.60	989.02
Tasmania	1,286.33	115.23	134.99	1,536.55
Total, 30 June 1965	632.53	68.69	229.97	931.19
1964	608.09	64.44	216.74	889.27
1963	584.63	59.51	203.27	847.40
1962	562.29	54.79	188.98	806.06
1961	540.24	49.66	176.78	766.68

(*a*) Excludes amounts due to the central government. Includes bank overdrafts. (*b*) Oversea holdings have been converted to Australian currency at the rates of exchange current at 30 June of each year shown.

Commonwealth loan raisings

Under the Financial Agreement between the Commonwealth and the States the Commonwealth is responsible for raising all loan moneys required either by the Commonwealth or by the State Governments. Details of loan transactions given in this section relate, therefore, to all loans raised for the Commonwealth and the States.

New loans raised

Australia. The following table shows details of new loans raised in Australia by the Commonwealth during the three years 1963–64 to 1965–66.

COMMONWEALTH NEW LOANS(*a*) RAISED IN AUSTRALIA, 1963-64 TO 1965-66

Month of raising	Amount invited	Amount sub-scribed	Rate of interest per annum	Year of maturity	Price of issue	Allocation of loan		
						Commonwealth		States
						War (1939–45) etc.	Other pur-poses	
	$'000	$'000	Per cent		Per cent	$'000	$'000	$'000
1963–64—								
July (Loan No. 142) . .	90,000	66,932 50,351 31,752	3.75 4 25 4 50	1966 1973 1986	99 62 99 99 25	..	27,322	121,713
October (Loan No. 143) . .	120,000	42,551 49,964 46,265	3 75 4 25 4 50	1966 1973 1986	99 88 99 62 100	..	43,508	95,272
February (Loan No. 145) .	140,000	72,549 37,384 44,982	3 75 4 25 4 50	1967 1974 1987	99 75 99 62 100	..	83,533	71,382
May (Loan No. 147) . .	80,000	9,689 15,907 41,753	4 25 4 50 4 62	1967 1975 1984	100 100 99	..	14,760	52,589
July–June (special bonds)(*b*) .	..	72,159	3 75–4.75	1971	100	4,311	12,447	55,401
1964–65—								
August (Loan No. 149) . .	100,000	13,794 13,062 115,184	4 50 4.75 5	1967 1975 1984	99.50 100 100	..	25,152	116,888
November (Loan No. 151) .	120,000	11,500 17,560 71,351	4 25 4 75 5	1967 1975 1985	99 50 100 100	..	20,093	80,318
February (Loan No. 152). .	120,000	9,169 24.327 45.109	4 25 4.50 5	1967 1972 1985	99 62 99 25 100	..	13,925	64,680
April (Loan No. 153) . .	80,000	33.566 6.577 52.731	5 5 5 25	1968 1975 1985	100 99 100	..	61,769	31,104
June (Loan No. 155)(*c*) . .	134,000	22.000 20.000 92.000	5 5 5 25	1968 1975 1985	100 99 100	..	24,408	109,592
July–June	..	52,190	3 75–5.25	1972	100	7,187	8,117	36,886
1965–66—								
August (Loan No. 156) . .	70,000	39.307 17.404 38.671	5 00 5 00 5 25	1968 1975 1985	100 99 100	..	16,490	78,893
November (Loan No. 158) .	100,000	42,138 27,325 63,327	5.00 5.00 5 25	1968 1976 1988	100 99 100	..	85,995	46,796
February (Loan No. 160) .	100,000	85,140 10,969 78.101	5 00 5 00 5 25	1969 1976 1988	100 99 100	..	30,118	144,092
May (Loan No. 161) . .	75,000	24,464 7,933 29,677	5 00 5 00 5.25	1970 1976 1988	100 99 100	..	11,999	50,076
June (Loan No. 163)(*c*) . .	169,000	72,000 24,000 73,000	5 00 5 00 5 25	1970 1976 1988	100 99 100	..	40,544	128,456
July–June	..	25,266	4 50–5.25	1974	100	5 068	3,758	16,440

(*a*) Includes loans raised for redemption of Treasury bills, but excludes conversion loans, loans for redemption of debt maturing in London, short-term debt and certain miscellaneous debt (*see* page 820). (*b*) Special bonds open for continuous subscription redeemable at prices commencing at par and increasing to a premium of 3 per cent if held until maturity, 1966-72. Interest increases over period of currency. (*c*) Special issue. For details *see* following paragraph.

The loan of $169,000,000 raised in June 1966 was for the purpose of fulfilling an undertaking given by the Commonwealth that the States would have access to loan funds for their works programmes up to the approved Loan Council borrowing programmes. These programmes totalled $510,000 000 in 1962–63, $544,000,000 in 1963–64, $580,000,000 in 1964–65, and $605,000,000 in 1965–66. The subscription to the special loan in 1965–66 came from the Loan Consolidation and Investment Reserve Trust Account. Loan No. 155 of June 1965 was for the same purpose.

Finance for the approved Loan Council programmes from 1962–63 to 1965–66 was provided from the following sources:

	1962–63 $'000	1963–64 $'000	1964–65 $'000	1965–66 $'000
Public loans, domestic raisings, etc.	406,294	508,782	424,092	413,871
Overseas loans and special Commonwealth assistance . . .	103,706	35,218	155,908	191,129
Total	**510,000**	**544,000**	**580,000**	**605,000**

In addition to the new loans raised as shown in the table on the previous page and the redemption and conversion loans shown on page 818 there were other miscellaneous loan operations in Australia (*see* page 820).

London. A loan of £Stg 12,000,000, 5.5 per cent interest, price of issue 98 per cent, maturing 1978, was raised in London during 1962–63 and a further loan of £Stg 20,000,000, 5.5 per cent interest, price of issue 98.5 per cent, maturing 1982, was raised in 1963–64.

New York. The following table gives details of the loans raised during the period 1963–64 to 1965–66.

COMMONWEALTH NEW LOANS REPAYABLE IN UNITED STATES DOLLARS, 1963-64 TO 1965-66

Month of raising	Amount of loan	Rate of interest per annum	Price of issue	Year of maturity	Allocation of loan	
					Commonwealth	States
	$US'000	Per cent	Per cent		$US'000	$US'000
1963–64—						
July–June .	2,000	4.50–4.75	100	1965–71	(*a*) 2,000	. .
July–June .	2,500	4.75–5.25	100	1966–72	(*a*) 2,500	. .
July–June .	1,250	4.50–4.75	100	1971	(*b*) 1,250	. .
1964–65—						
May(*c*) .	25,000	5.50	98.50	1985	5,000	20,000
July–June .	7,000	4.50–4.75	100	1965–71	(*a*) 7,000	. .
July–June .	17,500	4.75–5.25	100	1966–72	(*a*) 17,500	. .
July–June .	4,750	4.75–5.25	100	1967–73	(*a*) 4,750	. .
July–June .	8,500	4.50–4.75	100	1971	(*b*) 8,500	. .
July–June .	1,000	4.75–5.25	100	1973	(*b*) 1,000	. .
1965–66—						
November(*c*)	25,000	5.75	99.75	1986	5,000	20,000
July–June .	5,000	4.50–5.25	100	1966–73	(*a*) 5,000	. .
July–June .	18,850	4.50–5.25	100	1966–74	(*a*) 18,850	. .
July–June .	4,250	5.00–5.75	100	1966–75	(*a*) 4,250	. .
July–June .	5,400	4.50–5.25	100	1966–74	(*b*) 5,400	. .
July–June .	250	5.00–5.75	100	1966–75	(*b*) 250	. .

(*a*) Proceeds used for Qantas Empire Airways Loan. (*b*) Proceeds used for Australian National Airlines Commission Loan. (*c*) Prospectus issued in New York and loan offered for subscription in the United States, United Kingdom and the various European centres.

Conversion and redemption loans

Australia. Particulars of conversion loans raised in Australia during the three years 1963–64 to 1965–66 are given in the following table.

COMMONWEALTH CONVERSION AND REDEMPTION LOANS RAISED IN AUSTRALIA, 1963-64 TO 1965-66

Month of raising	Old loan		New loan				Increase in annual liability for interest
	Amount	Rate of interest per annum	Amount	Rate of interest per annum	Price of issue	Year of maturity	
	$A'000	Per cent	$A'000	Per cent	Per cent		$A'000
1963-64—							
October . . .	288,670	3.13	56,190	3.75	99.88	1966	260
			60,836	4.25	99.63	1973	
			84,420	4.50	100	1986	
			a 19,766	4.00–4.75	100	1970	
February . .	99,192	4.75	67,542	3.75	99.75	1967	−1,174
			17,580	4.25	99.63	1974	
			4,282	4.50	100	1987	
			(a)1,748	3.75–4.50	100	1971	
May . . .	165,652	4.25	67,108	4.25	100	1967	−1,596
			31,528	4.50	100	1975	
			25,220	4.63	99	1984	
			(a) 202	3.75–4.50	100	1971	
July–June (special bonds) . .	19,398	4.00–5.25	19,398	3.75–4.75	100	1970 1971	−48
1964-65—							
August . . .	415,672	3.13	58,284	4.25	99.50	1967	1,687
			58,018	4.75	100	1975	
			165,109	5.00	100	1984	
			a 27,970	4.25–5.00	100	1972	
April . . .	303,026	4.25–5.00	69,967	5.00	100	1968	−2,894
			42,466	5.00	99	1975	
			80,514	5.25	100	1985	
			(a)3,041	4.50–5.25	100	1972	
July–June (special bonds). . .	35,276	3.75–5.25	35,276	3.75–5.25	100	1971 1972	..
1965-66—							
August . . .	158,700	4.25	78,998	5.00	100	1968	−354
			24,626	5.00	99	1975	
			22,779	5.25	100	1985	
			(a) 304	4.50–5.25	100	1973	
November . .	95,391 132,238	3.13 4.50	73,832	5.00	100	1968	3,562
			70,144	5.00	99	1976	
			89,598	5.25	100	1988	
			a 13,152	4.50–5.25	100	1973	
May . . .	199,573 129,287	4.00 4.25	123,956	5.00	100	1970	1,761
			74,477	5.00	99	1976	
			100,748	5.25	100	1988	
			(a) 627	4.50–5.25	100	1973	
July–June (special bonds) . .	87,759	4.50–5.25	87,759	4.50–5.25	100	1974	..

(a) Special bonds.

Minus sign (−) indicates reduction in liability for interest.

London. The following table shows particulars of loans raised in London during the years 1960–61, 1962–63 and 1963–64 for the purpose of redeeming and converting London loans. None was raised during 1961–62 or since 1963–64.

COMMONWEALTH LOANS RAISED FOR THE CONVERSION AND REDEMPTION OF LOANS MATURING IN LONDON, 1960-61 TO 1963-64

Month of raising	Old loan		New loan					Increase in annual liability for interest and exchange	
	Amount	Rate of interest per annum	Amount raised in— Australia	Amount raised in— London	Rate of interest per annum	Price of issue	Year of maturity		
	£Stg '000	Per cent	$A'000	£Stg '000	Per cent	Per cent		£Stg '000	$A'000 (a)
1960–61—									
July . .	13,925	3	..	13,925	6	98	1977–80	418	1,045
January .	20,579	3.25	..	20,000	6	97.50	1975 1981–83	531	1,328
1962–63—									
July . .	11,790	4	..	10,000	6	97	1972	128	320
1963–64—									
October .	5,655	4	..	5,741	5.50	98.50	1982	90	225

(a) No account has been taken of the cost of issuing the conversion loans at a discount. Exchange calculated at $A1 = £Stg 0.4000 (the International Monetary Fund par rate of exchange in the years shown).

New York. During 1946–47 four loans totalling $US 128,000,000 were raised in New York to redeem loans which became due for redemption or which the Commonwealth had the option of redeeming. No further loans were raised in New York for this purpose until December 1954. The loan raised in New York for this purpose in March 1957 amounted to $US 17,114,000, at 5 per cent interest, issued at par, maturing in 1972. No loans were raised for the purpose of redeeming loans which became due for redemption or which the Commonwealth had the option of redeeming during 1957–58 to 1960–61, or in 1962–63 and 1963–64. In 1961–62 a re-financing loan of $US 30,000,000 was raised at 5.5 per cent interest, issued at 98.25 per cent, maturing in 1982.

Drawings from cash loans, for which Commonwealth notes were issued in New York between 1956 and 1964, were used to finance the purchase of aircraft and equipment by Qantas Empire Airways from November 1956, and to finance aircraft purchases by Trans-Australia Airlines from September 1958. At 30 June 1966 outstanding notes which are subject to interest rates varying between 4.25 per cent and 5.75 per cent and which are all repayable before 1 January 1975 amounted to $US 81,914,000.

International Bank for Reconstruction and Development loans

To provide dollar funds for the purchase of certain types of capital equipment and plant which were indispensable to the furtherance of development in Australia and which could be obtained only in the United States of America or Canada, the Commonwealth Government arranged five loans from the International Bank for Reconstruction and Development between August 1950 and December 1956, amounting to $US 308,500,000, repayable over periods of from ten to twenty-five years at rates of interest of from 4.25 to 4.75 per cent. The proceeds of the latest of these loans were finally drawn in March 1959.

The capital equipment and plant purchased from the proceeds of these loans were made available to Commonwealth and State Government departments and agencies, and private firms and individuals for use in the development of Australian resources. The goods were imported and distributed through normal channels, and payment was made through the Australian banking system.

The loan on behalf of Qantas Empire Airways of $US 9,230,000 at 4.75 per cent maturing in 1966–87 was finally drawn at the end of July 1958, and in 1962–63, 1963–64, 1964–65, and 1965–66 respectively drawings of $US 31,851,000, $US 27,018,000, $US 23,519,000 and $US 17,057,000 were made from the loan (at 5.75 per cent maturing in 1966–87) raised for the purposes of the Snowy Mountains Hydro-electric Authority.

Drawings from International Bank loans have been made mainly in United States dollars but partly in Canadian dollars, Swiss francs and German Deutsche marks.

Swiss loans

To foster industrial development in Australia and to stimulate trade relations between the two countries, the Commonwealth Government arranged for the issue in Switzerland in November 1953, February 1955, March 1960, and March 1961 of four public loans each of 60,000,000 Swiss francs. The loans were underwritten by a Swiss banking group headed by the Swiss Bank Corporation, the Crédit Suisse and the Union Bank of Switzerland. Certain Swiss taxes connected with the issue and servicing of the loans were paid on an agreed basis by the Australian Government.

The first loan was for a period of fifteen years with an option on the part of the Commonwealth Government to repay the loan in full or in part after twelve years. The rate of interest was 4 per cent and the issue price 99. Bondholders have the option of requiring payment either in Australian pounds or in the foreign currency equivalent of Australian pounds.

The second loan was for a period of fifteen years with an option to redeem after ten years. The rate of interest was 3.75 per cent, issue price 99.50 per cent. Bonds and interest are payable only in Swiss francs. The third loan was for a period of fifteen years with an option to redeem after ten years. The rate of interest was 4.5 per cent, issue price 99 per cent. The fourth loan was issued at par in March 1961, at the rate of 4.5 per cent maturing in April 1976. Payments of interest and repayments of principal are to be made only in Swiss francs.

The loans were fully subscribed, and Swiss franc proceeds, after deducting borrowing expenses, were sold by the Commonwealth Government to the Reserve Bank in return for an equivalent amount of Australian currency.

Canadian loans

In October 1955 the Commonwealth Government arranged for the issue in Canada of a public loan of 15,000,000 Canadian dollars raised to assist Australia's development programme. The loan was for a period of fifteen years with an option on the part of the Australian Government to repay the loan in full or in part at any time prior to 1 November 1970. The rate of interest was 4 per cent, payable half-yearly, and the issue price 98.50 per cent. A second loan, of 20,000,000 Canadian dollars, was raised in March 1961, on the security of the Commonwealth of Australia, 5.75 per cent twenty-year bonds being issued at the rate of 98.50 per cent. Bonds and interest are payable in Canadian dollars in each case. The loans were fully subscribed, and the net Canadian dollar proceeds were sold to the Reserve Bank for Australian currency.

Netherlands loan

In 1961 the Commonwealth arranged for a public flotation in the Netherlands of a loan of 40,000,000 Netherlands guilders at par, with an interest rate of 5 per cent per annum. The proceeds were used to assist the loan programmes of the Commonwealth and States. The loan is to be repaid in fifteen annual instalments from 1967 to 1981, but, at the Commonwealth's option, an earlier redemption date may be negotiated on and after 15 December 1971.

Summary of loan transactions

The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the five years 1961–62 to 1965–66.

COMMONWEALTH LOAN TRANSACTIONS: SUMMARY, 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
New loans(*a*) raised in—						
Australia . . .	$A'000	460,152	476,160	582,238	600,120	658,725
London . . .	£Stg'000	. .	12,000	21,067	. .	. .
New York(*b*) . . .	$US'000	51,483	122,701	32,768	87,269	75,807
Netherlands . .	guilders '000	40,000	. .	. .	. .	. .
Miscellaneous debt in Australia(*c*)	$A'000	8,930	34,793	−54	24,184	6,350
Net change in short-term debt—						
Australia—Public . .	$A'000	44,000	−170,000	−68,000	−62,000	−36,000
Internal .	$A'000	−20,400	77,800	39,400	33,400	49,100
Treasury notes	$A'000	. .	139,076	13,494	−72,138	35,564
Loans raised for conversion or redemption of existing securities maturing in—						
Australia . . .	$A'000	457,888	793,663	455,820	540,645	761,000
London . . .	£Stg'000	. .	10,000	5,741	. .	. .
New York . . .	$US'000	30,000	. .	. .	. .	. .

(*a*) Includes loans raised for redemption of Treasury bills. (*b*) Includes proceeds of $US31,851,000 $US 27,018,000, $US 23,519,000 and $US 17,057,000 in 1962–63, 1963–64, 1964–65, and 1965–66 from International Bank for Reconstruction and Development loan used for the purposes of the Snowy Mountains Hydro-electric Authority. (*c*) Advance loan subscriptions (net change), 'over the counter sales' (instalment stock and inscribed stock and bonds issued by State Governments), and Peace Savings Certificates (interest credited).

Minus sign (−) denotes a decrease in debt.

Government securities on issue maturing in Australia, classified by holder

The following table shows details of government securities maturing in Australia classified according to holder as at the 30 June 1965 and 1966.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATE MATURING IN AUSTRALIA, BY HOLDER(a), 30 JUNE 1965 AND 1966

(*Source:* Reserve Bank of Australia *Statistical Bulletin*)

Holder	30 June—			
	1965		1966	
	Amount	Proportion of total	Amount	Proportion of total
	$ million	Per cent	$ million	Per cent
Reserve Bank of Australia	805	9.3	692	7.6
Trading banks	945	10.9	1,115	12.2
Savings banks	2,066	23.8	2,116	23.2
Life insurance offices	745	8.6	834	9.1
Fire, marine and general insurance offices	98	1.1	108	1.2
Other private financial institutions—				
Pension and provident funds	124	1.4	138	1.5
Friendly societies, hospitals and medical funds	16	0.2	17	0.2
Trustee companies	130	1.5	127	1.4
Pastoral finance companies	16	0.2	27	0.3
Money market dealers	343	3.9	377	4.1
Miscellaneous	25	0.3	42	0.5
Government financial institutions—				
Insurance offices and funds	101	1.1	108	1.2
Pension and provident funds	171	2.0	180	2.0
Public trustees	36	0.4	33	0.4
All other(b)	7	0.1	7	0.1
Public authorities (excluding finance)—				
Commonwealth Government (including Commonwealth semi-government)	1,508	17.3	1,644	18.0
State Government	25	0.3	29	0.3
Local government and State semi-government	243	2.8	250	2.7
Companies (excluding finance)	174	2.0	150	1.7
Other holders—				
Marketing boards	3	0.1	4	..
Farmers	116	1.3	103	1.1
Non-profit organisations	52	0.6	53	0.6
All other	946	10.9	980	10.7
Total	**8,695**	**100.0**	**9,134**	**100.0**

(a) Total stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Commonwealth Treasury Bills, debentures, and Savings Certificates. (b) Includes securities held by Commonwealth Development Bank of Australia.

National Debt Sinking Fund

Securities on issue on behalf of the Commonwealth

Particulars relating to the creation of sinking funds are included in issues of the Year Book prior to No. 23. The old sinking funds were merged in the National Debt Sinking Fund on 11 August 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1961–62 to 1965–66 are as follows.

NATIONAL DEBT SINKING FUND: COMMONWEALTH ACCOUNT, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Receipts—					
From Consolidated Revenue	50,323	54,460	57,739	62,171	64,969
Loans and advances repaid	7,667	7,984	8,806	10,318	11,659
War Service Homes money repaid	18,844	22,175	27,131	31,137	31,045
Reparation moneys	16	..	..	..	221
Interest on investments	(a) 13,234	(a) 12,082	(a) 12,872	(a) 12,040	(a) 11,910
Total, receipts	*90,083*	*96,701*	*106,547*	*115,666*	*119,804*
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	105,050	31,309	49,311	153,857	81,869
London	340	165	1,507	7,239	6,565
New York	(b) 20,661	(b) 19,350	(b) 20,334	(b) 22,301	(b) 26,166
Canada	..	15	97	69	151
Total, expenditure	*126,051*	*50,838*	*71,249*	*183,466*	*114,751*
Balance at 30 June	284,401	330,264	365,562	297,761	302,814
Face value of securities repurchased and redeemed in—					
Australia	105,371	31,279	48,881	153,823	82,258
London	301	130	1,268	6,279	5,711
New York	(b) 9,535	(b) 8,913	(b) 9,330	(b) 10,204	(b) 12,026
Canada	..	7	48	34	75
Total, face value	*115,207*	*40,330*	*59,526*	*170,340*	*100,070*

(a) Includes interest received under *National Debt Sinking Fund (Special Payment) Act* 1951: 1961–62, $3.8m; 1962–63, $3.5m; 1963–64, $3.5m; 1964–65, $3.5m; 1965–66, $3.5m. (b) Includes instalment repayments of loans from International Bank for Reconstruction and Development: 1961-62—face value, $7.3m, net cost, $15.8m; 1962–63—face value, $7.6m, net cost $16.6m; 1963–64—face value, $8.0m, net cost $17.4m; 1964–65—face value, $8.4m, net cost, $18.3m; 1965–66—face value $8.7m, net cost $19.1m.

Securities on issue on behalf of States

A sinking fund for the redemption of the securities on issue on behalf of States was established under the Financial Agreement. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1965–66 and for all States during the years 1961–62 to 1965–66 are shown in the following tables.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1965-66

($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	5,991	4,225	2,272	2,335	1,726	1,212	17,761
States	21,196	16,413	8,007	8,226	6,903	3,641	64,385
Interest from States on cancelled securities	31	25	24	12	10	4	106
Special contributions by States	63	102	30	20	6	2	222
Interest on investments, etc.	15	5	1	4	4	..	30
Total, receipts	*27,295*	*20,769*	*10,334*	*10,597*	*8,649*	*4,859*	*82,503*
Expenditure (net cost)—							
Securities repurchased and redeemed in—							
Australia	22,252	16,027	4,773	7,711	6,598	3,500	60,861
London	1,093	2,667	4,173	1,793	1,162	798	11,685
New York	4,310	2,765	1,674	1,332	1,020	674	11,775
Canada	246	197	100	105	76	58	782
Total, expenditure	*27,901*	*21,656*	*10,720*	*10,941*	*8,856*	*5,030*	*85,104*
Balance at 30 June 1966	975	211	278	292	267	159	2,182
Face value of securities repurchased and redeemed in—							
Australia	22,260	16,043	4,773	7,714	6,598	3,500	60,888
London	1,030	2,256	3,470	1,551	1,049	646	10,002
New York	1,997	1,281	774	617	473	313	5,455
Canada	122	98	49	52	37	29	388
Total, face value	*25,409*	*19,677*	*9,067*	*9,934*	*8,158*	*4,487*	*76,733*

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
Receipts—					
Contributions under Financial Agreement—					
Commonwealth	13,478	14,497	15,691	16,646	17,761
States	49,316	52,108	55,669	60,099	64,385
Interest from States on cancelled securities	30	66	45	26	106
Special contributions by States	387	344	974	222	222
Interest on investments, etc.	8	−80	107	−36	30
Total, receipts	*63,219*	*66,935*	*72,486*	*76,958*	*82,503*
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	51,781	54,068	60,791	52,808	60,861
London	1,249	6,068	4,075	14,612	11,685
New York	10,115	4,138	6,228	9,948	11,775
Canada	..	79	501	358	782
Total, expenditure	*63,145*	*64,353*	*71,594*	*77,726*	*85,104*
Balance at 30 June	1,078	4,660	5,522	4,783	2,182
Face values of securities repurchased and redeemed in—					
Australia	51,452	54,116	60,806	52,825	60,888
London	1,061	4,230	3,520	12,250	10,002
New York	4,556	1,920	2,862	4,554	5,455
Canada	..	40	248	178	388
Total, face value	*57,068*	*60,306*	*67,435*	*69,807*	*76,733*

TAXES ON INCOME

A description of the development of income taxes in Australia appeared in Year Book No. 35, page 926. Since July 1942 the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income.

The Income Tax Assessment Act 1936–1966, the *Income Tax Act* 1966, the *Income Tax* (*Non-Resident Dividends*) *Act* 1965, and the Income Tax Regulations deal with the assessment and imposition of Income Tax. The second-mentioned Act is an annual measure, and its primary purpose is to declare the rates of tax payable for the financial year.

Both individuals and companies are liable for income tax. Private companies are subject to tax on undistributed income in addition to the primary income tax levied on all companies.

The operation of the *Income Tax Assessment Act* 1936–1966 is affected by the following Acts:

(*a*) *Taxation Administration Act* 1953–1965, which provides for the administration of certain Acts relating to taxation;

(*b*) *Income Tax* (*International Agreements*) *Act* 1954–1966 which gives the force of law to agreements between the Commonwealth and the Governments of the United Kingdom, Canada and New Zealand, and to a convention between the Government of the Commonwealth and the United States of America, for the avoidance of double taxation and the prevention of evasion of taxes on income.

Lodgment of returns and assessment of income tax

Individuals and non-profit companies with total income in excess of $416 and all partnerships. trusts and companies deriving income are required to lodge returns of income by 31 July each year (31 August for business incomes). The income tax payable is assessed, and assessment notices showing the amounts payable are issued, during the year following the year of income. In respect of individuals the approximate amount payable, however, has already been collected during the income year from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded. No such system of 'pay-as you-earn' is in operation in respect of companies.

Pay-as-you-earn system

Salary and wage earners. Under this system salary and wage earners are subject to instalment deductions for payment of the tax at current rates from weekly (or fortnightly) earnings. Employers are required to make the deductions in accordance with a prescribed instalment scale.

This scale shows the amount to be deducted according to the income and number of dependants of the employees. Under the group scheme of deduction, covering most employers of more than ten persons, the amount deducted is remitted to the Taxation Department within seven days of the close of the month in which the deduction is made.

Not later than 14 July each year employers are required to supply each employee with a group certificate showing amount earned and total deductions during the year ended 30 June. This certificate, together with the employee's return of income, is forwarded to the Taxation Department. If the tax assessed on the basis of the return is less than the amount shown on the group certificate, a refund is forwarded with the assessment, if not, the employee is required to pay the balance.

Under the stamp scheme used by employers other than group employers a stamp deduction sheet in two parts is used. Each four weeks the employer purchases stamps (also in two parts) for the amount of deductions made each pay day and sticks one part on each half of the sheet. At the end of the year the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

Taxpayers with income other than salary or wages. These taxpayers pay provisional tax in respect of income other than salary and wages. Collection of tax for the current year is made at the same time as collection and assessment for the previous year are adjusted. The notice of assessment shows an amount of provisional tax for the current year. The provisional amount is an approximation to the tax which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged), but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax paid in the previous year as a credit against the tax assessed on the basis of the return for that year. On receipt of his assessment, the taxpayer may elect to substitute his own estimate of income for the current year and pay tax on the basis of this estimate. To protect the revenue, a penalty is imposed if the taxpayer elects to pay provisional tax on an estimate of income more than twenty per cent lower than the income of the previous year and he underestimates his income by more than twenty per cent. An employee with income of $300 or more from sources other than salaries or wages is required to pay provisional tax in respect of that income.

Tax collected. During the collection years 1961–62 to 1965–66 net receipts (i.e. tax collected *less* refunds to taxpayers) from individual taxpayers were $1,074 7m; $1,083 4m; $1,272.2m; $1,570 4m, and $1,731.2m respectively. Of these amounts, instalments from salaries and wages in the respective years accounted for $653 4m (60 80 per cent), $684.4m (63.17 per cent), $792 2m (62 28 per cent), $990.6m (63 08 per cent), and $1,160.4m (67.03 per cent). The remainder came from direct cash payments from individual taxpayers.

Assessable income

As a general principle income assessable to income tax includes all income other than exempt income derived directly or indirectly from sources in Australia. Thus a non-resident is taxed on income derived in Australia, while a resident is, in general, not taxed on income (other than dividends) derived from overseas, if the income is taxed in the country in which it is derived.

The word income is used in its ordinary sense and includes certain receipts declared by the Assessment Act to be assessable income. Receipts such as gifts (other than gratuities received by an employee from his employer in the course of his employment), legacies, profits from the sale of property not acquired for the purpose of profit making by sale), lottery wins, and most capital gains are not regarded as income and are not assessable.

Certain types of Australian income are exempt from tax in Australia, the more important being (i) pensions, child endowment and other payments under the *Social Services Act* 1947–1966 and the *Tuberculosis Act* 1948, (ii) income from gold-mining and uranium mining, (iii) twenty per cent of certain mining profits, (iv) dividends paid out of exempt mining profits, and (v) income received from a scholarship, bursary or other education allowance. No amount is included in assessable income on account of a house occupied by its owner.

For the 1965–66 and subsequent income years the pay and allowances and bounties for part-time duty, and the gratuity payable on a call out for continuous full-time service of members of each service of the Defence Force Emergency Reserves is exempt from income tax. This exemption does not apply to pay and allowances for continuous full-time service in Australia. Also the pay and allowances earned by members of the Defence Force for service outside Australia while allotted for duty in special areas (i.e. part of Borneo and adjacent waters, and South Vietnam) are exempt from income tax.

Expenses incurred in gaining or producing assessable income or necessarily incurred in carrying on a business for that purpose are allowable deductions, except to the extent that such expenses are of a capital, private, or domestic nature, or are incurred in gaining or producing exempt income. Certain subscriptions to business associations and trade union dues are also allowable deductions.

Special deductions for both resident and non-resident taxpayers include such items as trading losses incurred over the previous seven years, bad debts, depreciation, rates and taxes on land which are annually assessed, gifts to certain institutions (e.g. scientific, charitable, benevolent, etc.), and one-third of amounts paid as calls to certain mining, prospecting, oil-prospecting, or afforestation companies operating in Australia. Resident taxpayers only are allowed a deduction from income of the full amount paid as calls and as application and allotment moneys to certain companies engaged in the search for oil in Australia and the Territory of Papua and New Guinea.

Special deductions may be allowed for capital actually expended in mining operations conducted for the purpose of earning assessable income. In the case of primary producers certain developmental expenditure of a capital nature may be deducted. Deductions in addition to depreciation are allowed to manufacturers and primary producers by way of an investment allowance for expenditure on specified plant and equipment. Subject to a maximum permissible tax saving, a double deduction is effectively allowed for certain expenditure incurred in export market development.

Residents of prescribed isolated areas subject to uncongenial climatic conditions and high costs of living are entitled to a zone allowance deduction. Two zones, A and B, have been prescribed and the boundaries are as defined in the Second Schedule, *Income Tax Act* 1936–1966. The allowances are: Zone A, $540 plus an amount equal to half the total deductions allowable to the taxpayer for the maintenance of dependants; and Zone B, $90 plus an amount equal to one-twelfth of the total deductions allowable to the taxpayer for the maintenance of dependants. Members of the defence forces serving in certain overseas localities, other than those declared to be special areas (*see* previous page), for more than half the year of income are also entitled to a deduction of the same amount as residents of Zone A.

Income tax is levied on the taxable income remaining after making these deductions and the concessional deductions to which reference is made in the following paragraphs.

Concessional deductions

Concessional allowances to residents for dependants, medical and dental expenses, life insurance and superannuation contributions, etc. are made by way of a deduction from income. The maximum deduction allowed for the income year 1966–67 for each dependant or for a housekeeper employed by the taxpayer is shown in the following table.

Dependant, etc. (resident)	Maximum deduction(*a*)
	$
Spouse	286
Daughter-housekeeper(*b*) . .	286
Housekeeper(*c*)	286
Parent or parent-in-law . .	286
One child under 16 years of age .	182
Other children under 16 years of age	130
Invalid relative(*d*) . . .	182
Child 16 to 21 years receiving full-time education . . .	182

(*a*) If the dependant is maintained for part only of the year, a partial deduction is allowed. (*b*) Of a widower or widow. (*c*) Caring for a spouse in receipt of an invalid pension, or caring for children under 16 years of age of a widower or widow. (*d*) Child, step-child, brother or sister over 16 years of age.

When the dependant maintained derives separate income, the amount of the concessional deduction is reduced by the amount, if any, by which the separate net income exceeds $130. Separate net income includes age and invalid pensions but not child endowment. Scholarships are excluded except insofar as they relate to maintenance.

For the 1966–67 income year medical expenses (less amounts recouped from hospital and medical funds) paid by a taxpayer who is a resident, in respect of himself or dependants, including children under twenty-one years of age, are allowed as a concessional deduction. Medical expenses include payments made to a legally qualified medical practitioner, nurse or chemist, or to a hospital, in respect of an illness or operation, payments for dental services, payments for therapeutic treatment and eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, the remuneration of an attendant of a person who is blind or confined to a bed or invalid chair, and payments for the maintenance of a trained dog used for the guidance of a blind person.

Other concessional deductions allowed to resident taxpayers include: (i) payments of life insurance premiums and contributions to superannuation funds and friendly societies, not exceeding an aggregate of $800, (ii) payments to medical or hospital benefits funds, (iii) funeral expenses of a dependant not exceeding $100, and (iv) expenditure incurred for the full-time education of children or dependants who are less than twenty-one years of age, with a maximum of $300 for each child or dependant.

Effective exemption from tax

For the income years 1950–51 to 1962–63 taxpayers without dependants were exempt from income tax if their income did not exceed $208. For 1963–64 to 1966–67 this exemption was $416. The effect of the deductions for dependants was to exempt resident taxpayers up to the incomes shown hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM TAX

($)

Taxpayer with—	Income years		
	1953–54 to 1956–57	1957–58 to 1962–63	1963–64 to 1966–67
No dependants	208	208	416
Wife	468	494	702
Wife and one child	624	676	884
Wife and two children	728	806	1,014
Wife and three children	832	936	1,144
Wife and four children	936	1,066	1,274

For the 1966–67 income year an aged person (i.e. a man who has attained the age of sixty-five years or a woman who has attained the age of sixty years and is a resident of Australia during the whole of the year of income) is exempt from income tax if his or her net income (i.e. gross income less expenses of earning that income) does not exceed $1,070. If the net income exceeds $1,070 but does not exceed $1,264 the tax cannot exceed nine-twentieths of the excess of the income over $1,070. An aged person who contributes to the maintenance of a spouse is exempt from tax if the combined net incomes of the taxpayer and the spouse do not exceed $1,980. Where their combined incomes exceed $1,980 the tax payable by the taxpayer (provided his net income does not exceed $2,958) is limited to nine-twentieths of the excess of their combined net income over $1,980.

Rates of income tax on individuals

The table on page 827 shows the rates of income tax for income years 1953–54 to 1966–67.

The minimum amount of income tax payable is 50c.

Where the taxable income of a person does not exceed $428 the amount of tax payable is limited to one half of the amount by which the taxable income exceeds $416.

For primary producers the rate of income tax for the current year is determined by the average of the taxable incomes for the five years up to and including the current year. A taxpayer may elect not to have these averaging provisions applied to his assessment, but the election, once made, is irrevocable. The application of the averaging provisions is limited to that part of the taxable income which does not exceed $16,000. When the taxable income does exceed $16,000, the balance is taxed at ordinary rates applicable to that part. When the taxable income is less than $16,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of $16,000.

The taxable income, including any abnormal receipts, of actors, artists, composers, inventors, etc. is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest on Commonwealth loans issued prior to 1 January 1940 is subject to the condition that it shall not be taxed at rates higher than those for 1930–31. Interest derived from bonds, debentures, stocks or other securities issued after 1 January 1940 by the Commonwealth, together with interest on certain State semi-governmental loans issued free of State income tax, is subject to a rebate of 10 cents for each $1 included in the taxable income.

INCOME TAX—INDIVIDUALS: RATES OF INCOME TAX 1953–54 TO 1966–67

Total taxable income		1953–54		1954–55 to 1964–65(*a*)		1965–66 and 1966–67(*b*)	
Column 1 Exceeding	Column 2 Not exceeding	Tax on amount in column 1	Tax on each $ of balance of income	Tax on amount in column 1	Tax on each $ of balance of income	Tax on amount in column 1	Tax on each $ of balance of income
$	$	$	cents	$	cents	$	cents
Nil	200	Nil	0.42	Nil	0.42	Nil	0.40
200	300	0.83	1.67	0.83	1.25	0.80	1.20
300	400	2.50	3.75	2.08	2.92	2.00	2.90
400	500	6.25	5.42	5.00	4.58	4.90	4.50
500	600	11.67	7.08	9.58	6.25	9.40	6.10
600	800	18.75	9.17	15.83	8.33	15.50	8.20
800	1,000	37.08	11.67	32.50	10.83	31.90	10.80
1,000	1,200	60.42	13.75	54.17	12.50	53.50	12.50
1,200	1,400	87.92	15.83	79.17	14.17	78.50	14.20
1,400	1,600	119.58	17.50	107.50	15.83	106.90	15.90
1,600	1,800	154.58	19.17	139.17	17.50	138.70	17.60
1,800	2,000	192.92	20.83	174.17	19.17	173.90	19.30
2,000	2,400	234.58	23.33	212.50	21.67	212.50	21.60
2,400	2,800	327.92	26.67	299.17	24.58	298.90	24.60
2,800	3,200	434.58	29.58	397.50	27.08	397.30	27.10
3,200	3,600	552.92	32.50	505.83	29.58	505.70	29.60
3,600	4,000	682.92	35.42	624.17	32.08	624.10	32.10
4,000	4,800	824.58	38.75	752.50	35.42	752.50	35.40
4,800	5,600	1,134.58	41.67	1,035.83	38.33	1,035.70	38.30
5,600	6,400	1,467.92	44.58	1,342.50	41.25	1,342.10	41.20
6,400	7,200	1,824.58	47.50	1,672.50	43.75	1,671.70	43.80
7,200	8,000	2,204.58	50.42	2,022.50	46.25	2,022.10	46.30
8,000	8,800	2,607.92	53.33	2,392.50	48.75	2,392.50	48.70
8,800	10,000	3,034.58	56.67	2,782.50	51.67	2,782.10	51.70
10,000	12,000	3,714.58	60.00	3,402.50	55.00	3,402.50	55.00
12,000	16,000	4,914.58	62.92	4,502.50	57.92	4,502.50	57.90
16,000	20,000	7,431.25	65.83	6,819.17	60.42	6,818.50	60.40
20,000	32,000	10,064.58	68.75	9,235.83	63.33	9,234.50	63.30
32,000	upwards	18,314.58	70.00	16,835.83	66.67	16,830.50	66.70

(*a*) For the 1959–60, 1961–62, 1962–63, and 1963–64 income years a rebate of 5 per cent was allowable on the tax calculated from this schedule. (*b*) Additional tax equal to 2½ per cent of the tax at general rates was also payable for the 1965–66 and 1966–67 financial years.

Taxes on specified incomes

The following table shows the income tax payable by taxpayers, with various incomes and numbers of dependants, on income derived in the years 1959–60 to 1966–67.

INCOME TAX ON SPECIFIED INCOMES, 1959-60 TO 1966-67

($)

TAXPAYER WITH NO DEPENDANTS

Income(*a*) $	1959–60	1960–61	1961–62 and 1962–63	1963–64	1964–65	1965–66 and 1966–67
300	2.00	2.10	2.00	..	..	..
400	4.80	5.00	4.80	..	..	..
500	9.10	9.60	9.10	9.10	9.60	9.60
600	15.00	15.80	15.00	15.00	15.80	15.90
700	23.00	24.20	23.00	23.00	24.20	24.30
800	30.90	32.50	30.90	30.90	32.50	32.70
1,000	51.50	54.20	51.50	51.50	54.20	54.80
1,200	75.20	79.20	75.20	75.20	79.20	80.50
1,600	132.20	139.20	132.20	132.20	139.20	142.20
2,000	201.90	212.50	201.90	201.90	212.50	217.80
3,000	429.10	451.70	429.10	429.10	451.70	462.80
4,000	714.90	752.50	714.90	714.90	752.50	771.30
6,000	1,432.10	1,507.50	1,432.10	1,432.10	1,507.50	1,544.60
10,000	3,232.40	3,402.50	3,232.40	3,232.40	3,402.50	3,487.60

TAXPAYER WITH DEPENDENT WIFE

Income(*a*) $	1959–60	1960–61	1961–62 and 1962–63	1963–64	1964–65	1965–66 and 1966–67
300	..	..	..	..	..	..
400	..	..	..	..	..	..
500	1.00	1.00	1.00	..	..	..
600	2.40	2.50	2.40	..	..	..
700	5.30	5.60	5.30	..	..	..
800	10.00	10.50	10.00	10.00	10.50	10.50
1,000	24.00	25.30	24.00	24.00	25.30	25.50
1,200	42.60	44.80	42.60	42.60	44.80	45.30
1,600	90.50	95.30	90.50	90.50	95.30	97.00
2,000	151.10	159.10	151.10	151.10	159.10	162.70
3,000	357.60	376.40	357.60	357.60	376.40	385.50
4,000	627.70	660.70	627.70	627.70	660.70	677.20
6,000	1,320.00	1,389.50	1,320.00	1,320.00	1,389.50	1,423.80
10,000	3,092.00	3,254.70	3,092.00	3,092.00	3,254.70	3,336.00

TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD

Income(*a*) $	1959–60	1960–61	1961–62 and 1962–63	1963–64	1964–65	1965–66 and 1966–67
300	..	..	..	..	..	..
400	..	..	..	..	..	..
500	..	..	..	..	..	..
600	..	..	..	..	..	..
700	1.10	1.20	1.10	..	..	..
800	2.90	3.00	2.90	..	..	..
1,000	11.00	11.60	11.00	11.00	11.60	11.60
1,200	25.50	26.80	25.50	25.50	26.80	27.00
1,600	67.20	70.70	67.20	67.20	70.70	71.70
2,000	122.00	128.40	122.00	122.00	128.40	131.10
3,000	315.00	331.60	315.00	315.00	331.60	339.70
4,000	573.80	604.00	573.80	573.80	604.00	619.10
6,000	1,250.60	1,316.40	1,250.60	1,250.60	1,316.40	1,348.90
10,000	3,002.70	3,160.70	3,002.70	3,002.70	3,160.70	3,239.60

(*a*) Income remaining after allowing all deductions other than deductions for dependants.

INCOME TAX ON SPECIFIED INCOMES, 1959–60 TO 1966–67—*continued*

($)

Income(*a*) $	1959–60	1960–61	1961–62 and 1962–63	1963–64	1964–65	1965–66 and 1966–67
TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN						
300	..	..	..	..	..	..
400	..	..	..	..	..	..
500	..	..	..	..	..	..
600	..	..	..	..	..	..
700	..	..	..	..	..	..
800	..	..	..	..	..	..
1,000	4.80	5.10	4.80	..	..	..
1,200	15.20	16.00	15.20	15.20	16.00	16.00
1,600	51.70	54.40	51.70	51.70	54.40	55.10
2,000	102.40	107.80	102.40	102.40	107.80	109.90
3,000	284.70	299.70	284.70	284.70	299.70	306.90
4,000	537.30	565.60	537.30	537.30	565.60	579.60
6,000	1,203.30	1,266.60	1,203.30	1,203.30	1,266.60	1,297.90
10,000	2,938.80	3,093.50	2,938.80	2,938.80	3,093.50	3,170.70

(*a*) Income remaining after allowing all deductions other than deductions for dependants.

Company income taxes

For taxation purposes companies are divided into two main groups—private and public. Broadly, a private company is defined as a company in which all the issued shares are held by not more than twenty persons, or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested, or is a subsidiary of a public company. All other companies are regarded as public companies. Both private and public companies pay primary tax assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income; resident companies however, receive a rebate at the average rate on the amount of dividends included in the taxable income, while this rebate is not allowed to non-resident companies.

Rates of tax. A private company incurs liability for additional tax on its undistributed income if it fails to make a sufficient distribution of income within a specified period after the close of the year of income. The tax is levied on the undistributed amount which, for practical purposes, is the taxable income less—(*a*) primary income tax payable; (*b*) retention allowance (i.e. the proportion of the reduced distributable income which a company may retain without incurring liability for undistributed income tax); and (*c*) certain dividends paid by the company.

The rates of primary tax for all companies and additional tax for private companies applicable to income years 1955–56 to 1965–66 are shown in the following table.

RATES OF TAX: COMPANIES, 1955-56 TO 1965-66 INCOME YEARS

(Cents per $)

Income year	Private company			Public company(*a*)	
	Up to $10,000	On remainder of taxable income	Rate of additional tax on undistributed income	Up to $10,000	On remainder of taxable income
1955–56	25	35	50	35	40
1956–57 to 1958–59 . .	22½	32½	50	32½	37½
1959–60 to 1962–63 . .	25	35	50	35	40
1963–64 to 1965–66 . .	27½	37½	50	37½	42½

(*a*) Excludes co-operative, non-profit and life insurance for which the rates of tax (in cents per $) for 1965–66 were as under:

Type of company	Up to $10,000	On remainder of taxable income
Co-operative	32½	42½
Non-profit—Friendly societies dispensaries . .	32½	32½
Other	32½	42½
Mutual life insurance	27½	37½
Other life insurance—		
Mutual income	27½	37½
Other income	37½	42½

For non-resident companies rate of tax (cents per dollar) on dividends only was: up to $10,000 and remainder of taxable income respectively—1955–56, 30 cents and 40 cents; 1956–57 to 1958–59, 27½ cents and 37½ cents; 1959–1960 to 1962–63, 30 cents and 40 cents; 1963–64 to 1965–66, 32½ cents and 42½ cents.

For 1966–67 where the taxable income of a non-profit company does not exceed $1,188 the amount of tax payable is limited to half the amount by which the taxable income exceeds $416.

For the income years 1952–53 to 1965–66 the retention allowance (*see* page 829) was the proportion of the reduced distributable income shown in the following table.

RETENTION ALLOWANCE: PRIVATE COMPANIES 1952-53 TO 1965-66

(Per cent)

Reduced distributable income	1952–53 to 1957–58	1958–59 to 1961–62	1962–63 to 1965–66
First $2,000 or part	50	50	. .
Next $2,000 ,, ,, ...	40	40	. .
,, $2,000 ,, ,, ...	35	. .	. .
,, $2,000 ,, ,, ...	30	. .	. .
First $10,000 ,, ,, ...	. .	. .	50
Next $10,000 ,, ,, ...	. .	. .	45
Balance	25	35	40

In addition to the foregoing proportions, 10 per cent of distributable income from property, except dividends from other private companies, is also allowed.

For the income years 1952–53 to 1965–66 the reduced distributable income was calculated by deducting from the taxable income the primary tax payable and the amount of all property income included in taxable income. The additional tax on undistributed income was imposed at a flat rate of 50 cents in the dollar on the undistributed amount.

Income tax assessments

1963–64 *income year*. The following tables show, for the 1963–64 income year, the number of taxpayers, income, and net income tax assessed for individuals and resident and non-resident companies. For further information of this nature *see* the annual bulletin *Commonwealth Taxation Assessments* issued by this Bureau.

COMMONWEALTH INCOME TAX ASSESSMENTS(*a*): RESIDENT INDIVIDUALS BY GRADE OF INCOME AND BY STATE, ETC. OF ASSESSMENT

(Income derived in the year 1963–64)

Grade of actual income(*b*) and State or Territory of assessment	Taxpayers			Actual income(*b*)	Taxable income(*c*)			Net tax assessed
	Males	Females	Total	Total	Salary and wages	Other income	Total	
$ $	No.	No.	No.	$'000	$'000	$'000	$'000	$'000
417– 599	45,048	93,346	138,394	71,238	56,315	11,878	68,193	1,231
600– 799	68,915	130,092	199,007	139,659	108,134	21,281	129,416	3,843
800– 999	81,599	146,257	227,856	205,126	156,501	30,229	186,730	7,619
1,000– 1,199	91,246	156,253	247,499	271,626	199,719	43,614	243,333	12,438
1,200– 1,399	99,039	176,153	275,192	358,027	265,393	52,460	317,853	19,435
1,400– 1,599	113,291	168,628	281,919	422,400	308,819	60,460	369,279	25,676
1,600– 1,799	148,524	127,797	276,321	469,734	328,961	68,629	397,589	30,431
1,800– 1,999	208,826	90,098	298,924	568,278	387,421	73,983	461,405	37,889
2,000– 2,199	263,640	62,293	325,933	684,265	457,915	78,730	536,645	47,038
2,200– 2,399	275,713	41,780	317,493	729,998	480,320	78,979	559,299	52,253
2,400– 2,599	260,695	29,423	290,118	724,748	470,663	80,639	551,302	54,852
2,600– 2,799	238,201	22,652	260,853	703,147	448,699	79,299	527,998	55,391
2,800– 2,999	198,292	17,430	215,722	624,777	390,873	77,029	467,903	51,851
3,000– 3,999	553,835	51,136	604,971	2,064,632	1,221,892	337,245	1,559,137	198,324
4,000– 5,999	283,700	37,903	321,603	1,525,697	726,879	458,239	1,185,118	195,496
6,000– 7,999	75,042	13,596	88,638	605,413	199,006	291,775	490,781	104,323
8,000– 9,999	31,705	6,059	37,764	335,018	85,188	194,732	279,920	70,930
10,000–19,999	36,477	6,917	43,394	565,679	98,454	390,438	488,892	165,453
20,000–29,999	4,330	844	5,174	122,829	17,193	92,255	109,448	48,617
30,000 and over	1,865	366	2,231	102,612	12,723	78,775	91,497	48,005
Central Office	9,295	6,491	15,786	107,785	20,042	72,196	92,237	29,435
New South Wales	1,144,052	521,959	1,666,011	4,260,842	2,536,587	869,930	3,406,517	464,765
Victoria	871,380	425,490	1,296,870	3,274,385	1,907,122	743,074	2,650,196	360,567
Queensland	421,829	162,884	584,713	1,453,994	733,321	398,370	1,131,691	153,855
South Australia	292,597	126,265	418,862	1,021,326	565,615	254,594	820,209	103,839
Western Australia	212,565	84,581	297,146	724,919	385,058	184,757	569,814	73,460
Tasmania	96,365	37,420	133,785	316,004	184,505	60,716	245,221	29,372
Northern Territory	7,817	2,630	10,447	31,243	17,467	3,479	20,946	2,723
Australian Capital Territory	24,083	11,303	35,386	104,406	71,350	13,554	84,904	13,081
Total residents	**3,079,983**	**1,379,023**	**4,459,006**	**11,294,903**	**6,421,067**	**2,600,670**	**9,021,737**	**1,231,097**
Total non-residents	*1,062*	*404*	*1,466*	*6,908*	*4,516*	*2,215*	*6,732*	*1,345*
Total residents and non-residents	*3,081,045*	*1,379,427*	*4,460,472*	*11,301,811*	*6,425,583*	*2,602,885*	*9,028,469*	*1,232,442*

(*a*) Assessments in respect of 1963–64 incomes issued to 30 September 1965. Assessments issued after that date are not included. (*b*) Actual income is defined briefly as 'Gross income including exempt income less expenses incurred in gaining that income'. (*c*) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

COMMONWEALTH INCOME TAX ASSESSMENTS(*a*) RESIDENT AND NON-RESIDENT COMPANIES BY GRADE OF INCOME AND STATE, ETC., OF ASSESSMENT

(Income derived in the year 1963–64)

Grade of taxable income(*c*) and State or Territory of assessment	Taxable				Non-taxable		
	Companies	Actual income(*b*)	Taxable income(*c*)	Net tax assessed (*d*)	Companies	Taxable income (*c*)(*e*)	
$ $	No.	$'000	$'000	$'000	No.	$'000	
Loss for year	..	..	..	..	22,586	(*f*) 141,496	
Nil	..	..	..	..	12,136	..	
1– 1,999	19,526	23,355	13,690	3,666	2,845	2,068	
2,000– 9,999	23,754	141,486	128,276	33,384	3,082	15,497	
10,000– 19,999	9,986	147,503	138,100	39,627	879	12,251	
20,000– 39,999	5,471	161,490	151,814	47,237	523	14,230	
40,000– 99,999	3,386	220,596	208,433	67,982	300	18,253	
100,000– 199,999	1,311	193,264	182,712	61,016	112	15,689	
200,000– 399,999	713	218,561	200,291	66,976	49	13,877	
400,000– 999,999	440	286,349	269,677	84,541	29	18,378	
1,000,000–1,999,999	131	190,485	179,082	62,896	3	3,707	
2,000,000 and over	134	961,168	773,264	248,614	4	15,039	
							Loss(*g*)
Central Office	3,692	1,233,551	1,004,641	337,532	1,245	18,739	27,684
New South Wales	25,237	512,870	486,270	144,538	17,857	46,003	55,747
Victoria	18,696	392,279	371,783	110,398	12,247	32,015	29,803
Queensland	5,525	142,592	135,728	48,425	3,639	8,734	9,825
South Australia	6,278	120,875	113,548	36,168	3,426	8,627	5,825
Western Australia	2,517	68,300	63,048	21,647	1,498	1,371	5,410
Tasmania	1,255	29,848	28,807	8,993	852	837	2,417
Northern Territory	181	3,656	2,789	835	111	159	867
Australian Capital Territory	1,471	40,291	38,726	7,503	1,673	12,506	3,857
Total	**64,852**	**2,544,258**	**2,245,339**	**715,938**	**42,548**	**128,990**	**141,496**

(*a*) Assessments in respect of 1963–64 incomes issued to 31 December 1965. Assessments issued after that date are not included. (*b*) Actual income is defined briefly as 'Gross income including exempt income less expenses incurred in gaining that income'. (*c*) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (*d*) Excludes additional tax levied on the undistributed income of private companies. (*e*) Net tax assessed is nil because of rebates. (*f*) This figure is not included in the total shown for taxable income. (*g*) Not included in figures shown in adjoining column.

Income tax on residents, by grade of income. Individual income taxes assessed on residents are distributed according to grades of actual income in the following table. The year shown in each case is the year of income of the taxpayer. Assessments issued after the normal assessing period are not included.

COMMONWEALTH INCOME TAX ASSESSMENTS RESIDENT INDIVIDUALS, BY GRADE OF ACTUAL INCOME(*a*)

(Income years 1960-61 to 1963-64)

Grade of actual income (*a*)	Income year							
	1960–61		1961–62		1962–63		1963–64	
	Tax-payers	Net tax assessed	Tax-payers	Net tax assessed	Tax-payers	Net tax assessed	Tax-payers	Net tax assessed
$ $	No.	$'000	No.	$'000	No.	$'000	No. (*b*)	$'000 (*b*)
210– 399	159,541	394	159,892	372	166,450	384	138.394	1,231
400– 599	185,229	1,540	181,445	1,414	187,461	1,458	199,007	3,843
600– 799	215,468	4,200	207,996	3,830	210,437	3,844	227,856	7,619
800– 999	244,387	8,268	240,502	7,744	238,236	7,616	247,499	12.438
1,000– 1,199	265,308	13,806	255,915	12,530	256,636	12,548	275,192	19,435
1,200– 1,399	291,960	20,972	287,667	19,620	289,893	19,850	281,919	25,676
1,400– 1,599	281,872	25,706	285,783	25,056	288,192	25,418	276,321	30,431
1,600– 1,799	302,734	32,570	295,816	30,702	290,223	30,678	298,924	37,889
1,800– 1,999	342,070	42,534	338,675	40,406	329,293	39,844	325,933	47,038
2,000– 2,199	353,179	50,454	362,021	49,708	348,614	48,676	317,493	52,253
2,200– 2,399	312,243	51,376	328,910	52,372	326,268	52,192	290,118	54,852
2,400– 2,599	266,540	51,036	275,566	50,440	281,785	51,808	260,853	55,391
2,600– 2,799	216,529	47,642	222,923	46,540	240,493	50,440	215,722	51 851
2,800– 2,999	167,256	42,018	172,220	41,396	189,299	45,146	604,971	198,324
3,000– 3,999	433,485	148,692	448,352	145,148	510,518	164,938	321,603	195,496
4,000– 5,999	208,536	135,850	226,306	139,076	261,794	160,056	88,638	104,323
6,000– 7,999	55,817	73,470	58,771	72,670	70,656	85,524	37,764	70,930
8,000– 9,999	23,604	49,682	24,652	48,988	29,680	57,974	43,394	165,453
10,000–19,999	26,167	109,372	27,154	106,488	32,382	126,102	5,174	48,617
20,000–29,999	3,014	30,490	3,112	29,672	3,780	35,418	1,933	34,220
30,000–59,999	1,237	22,792	1,208	21,166	1,393	23,778	220	7,869
60,000–99,999	152	5,888	153	5,330	168	5,786	78	5,916
100,000 and over	52	3,696	69	5,514	69	5,228		
Total	**4,356,380**	**972,448**	**4,405,108**	**956,182**	**4,553,720**	**1,054,706**	**4,459,006**	**1,231,097**

(*a*) Actual income is defined briefly as 'Gross income including exempt income less expenses incurred in gaining that income'. (*b*) Exemption raised to $416.

Yield of income taxes

Income taxes collected. The following table shows the amounts of taxes collected and the proportions of the several components in the years 1961–62 to 1965–66.

INCOME TAXES COLLECTED, 1961-62 TO 1965-66

Tax	Collection year				
	1961–62	1962–63	1963–64	1964–65	1965–66
AMOUNTS COLLECTED ($'000)					
Individuals—					
Instalments from salaries and wages	653,428	684,426	792,242	990,600	1,160,369
Direct cash payments	421,262	398,982	479,916	579,762	570,799
Companies	565,376	519,828	586,260	709,044	801,105
Superannuation funds	. .	15	130	162	175
Dividend (withholding)	16,233	17,929	15,936	16,039	17,247
Total	**1,656,300**	**1,621,181**	**1,874,484**	**2,295,607**	**2,549,695**

INCOME TAXES COLLECTED, 1961–62 TO 1965–66—*continued*

Tax	Collection year				
	1961–62	1962–63	1963–64	1964–65	1965–66
PERCENTAGES					
Individuals—					
Instalments from salaries and wages	39.45	42.22	42.26	43.15	45.51
Direct cash payments	25.43	24.61	25.60	25.26	22.38
Companies	34.13	32.06	31.28	30.89	31.42
Superannuation funds	..	..	0.01	0.01	0.01
Dividend (withholding)	0.98	1.10	0.85	0.70	0.68
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Income tax assessed. The amounts of income tax covered by statistical analyses of assessments for recent years are shown in the following table. The amounts are shown under the year of income of the taxpayer. Tax is usually paid by companies in the year following the year of income. Individuals pay tax in the year of income, but there is usually an adjustment in the following year. Tax assessed after the close of the normal assessing period is not included.

INCOME TAXES ASSESSED, 1959-60 TO 1963-64

($'000)

Tax	Income year—				
	1959–60	1960–61	1961–62	1962–63	1963–64
Individuals	852,952	973,402	956,974	1,056,060	1,232,442
Companies—					
Primary tax	585,712	552,954	536,336	599,972	715,938
Additional tax on undistributed income of private companies	2,920	2,602	1,976	1,532	1,609
Total	**1,441,584**	**1,528,958**	**1,495,286**	**1,657,564**	**1,949,989**

Refunds of revenue. Income tax collections, as previously shown, are net amounts after refunds of revenue made in the course of the year. Refunds are of two types—those charged to special appropriations under authority of the Income Tax Assessment Act and those charged to special appropriations under authority of the Audit Act. Income tax instalment refunds, by far the greatest part of income tax refunds, are made when the instalments deducted during the year exceed the tax assessed on incomes for that year. Refunds made from special appropriations under section 37A of the Audit Act include refunds of moneys paid to the revenue in error, refunds of tax overpaid, refunds due to the amendment of assessments, etc. Refunds of income tax during the collection years 1961–62 to 1965–66 were: 1961–62, $211,035,328; 1962–63 $236,625,942; 1963–64, $242,421,772; 1964–65, $264,366,042; and 1965–66, $305,830,170.

CHAPTER 21

LOCAL GOVERNMENT

This chapter includes, in addition to information on the operation of local government authorities, information on the operation of certain semi-governmental authorities. The latter information is not comprehensive for this type of authority, and is included partly because of the association of the functions performed with those of local government authorities, and partly for convenience in preparation. Particulars of the activities of other semi-governmental authorities, e.g. transport, electricity and gas, and banking undertakings, for which only some financial statistics are given in this chapter, are included in the chapters relevant to those subjects.

Coverage

Local government authorities

In each State of the Commonwealth there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, and health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas, and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc. differ considerably.

The areas over which local government bodies exercise general control, numbering 900, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania as cities and municipalities. In New South Wales some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g. the county councils. Within shires there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Commonwealth Territories (except for the City of Darwin), practically the whole of Australia comes within local government jurisdiction.

The financial statistics in the following section are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

Semi-governmental authorities

In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g. roads and bridges, water and sewerage, electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority. In the sections which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades particulars are included of the more important of these authorities which operate within the range covered by this chapter.

Roads, bridges, etc.

The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a government department whose duties relate to the construction, reconstruction and maintenance of 'main' and 'developmental' roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Owing to difficulty in obtaining complete particulars of receipts and expenditure of the various local governing bodies in respect of roads under their control, the details of receipts and expenditure given on pages 846–53 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. However, estimates of the aggregate net expenditure of all public authorities concerned with roads and bridges in Australia are given on page 854 of that section. On pages 838–9 some information is given of the revenue and expenditure of local government authorities in respect of roads.

Water supply and sewerage

In the cities of Sydney. Melbourne and Perth the control of water supply and sewerage is in the hands of special boards, while in Adelaide these services are under the direct supervision of a government department. In most of the other cities and towns the municipal councils or, in some cases, water trusts are the controlling bodies, which either construct the works out of their own resources or take them over after they have been constructed by the government.

Harbours

The majority of the harbours in Australia are managed by boards, the members of which are either elected by persons interested, or appointed by the government. In some instances, however, they are directly controlled by the government.

Fire brigades

In all the States the management of fire brigades is undertaken by boards. These boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the government. Occasionally volunteer or country fire brigades are represented.

Local government authorities

New South Wales

For purposes of local government the whole of the Eastern and Central land divisions and more than two-thirds of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which include important towns). At the end of 1966 the area incorporated was 272,000 square miles, or nearly nine-tenths of the total area of the State. All local government authorities in the State are subject to the general provisions of the Local Government Act. Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g electricity, water, gas, abattoirs. At 31 December 1966 there were fifty-three county councils, including the Sydney County Council.

Victoria

Local government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated areas are French Island (41,600 acres) in Westernport Bay, Lady Julia Percy Island (652 acres) off Port Fairy, Bass Strait Islands (966 acres), part of Gippsland Lakes (31,920 acres), and Tower Hill (1,460 acres) adjacent to the Borough of Koroit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

Queensland

The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under '*The Local Authorities Act of* 1902' and its amendments.

South Australia

The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns and district councils in the agricultural areas.

Western Australia

Local government is established throughout the State, the divisions being cities, towns and shires.

Tasmania

The whole State is divided into municipal districts, Hobart and Launceston being incorporated as cities under separate Acts.

Area, population, dwellings, and value of rateable property

The area, population, dwellings, and value of rateable property in the incorporated areas of each State are shown for the year 1964-65 in the following table. The valuations relate to rateable property only and exclude government and other non-rateable property, whose value in the aggregate is considerable. In some cases councils rate on annual value, or unimproved capital value, or improved capital value, or partly on each of these bases of valuation. The amounts stated are the totals for the areas rated according to each basis of valuation. In this table particulars of dwellings are in accordance with the definition used in the 1961 census, and are compiled from information collected on the census schedules. For the purpose of the census a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide reference and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include vacant dwellings available for sale and renting, 'week-end' and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

In the following table metropolitan areas include the whole of some shires and municipalities part only of which is regarded as metropolitan for census and other purposes. This is because the financial activity of such areas cannot be split into 'metropolitan' and 'other' sections. The areas should not be compared with census metropolitan areas.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATEABLE PROPERTY, STATES, 1964-65

Location	Number	Area	Population	Dwellings		Value of rateable property		
				Occupied	Unoccupied	Unimproved capital value	Improved capital value	Annual value
		'000 acres	'000 (*a*)	No. (*b*)	No. (*b*)	$'000	$'000	$'000
New South Wales(*c*)—								
Metropolitan—								
Capital city	1	7	167	48,599	2,311	573.326	1,291 067	115,011
Other	34	702	2,230	570,916	22,825	2.651.328	6,814,778	415,695
Outside metropolitan area	190	173,648	1,782	441,537	47,267	1,501,114	n.a.	n.a.
Total, New South Wales	*225*	*174,357*	*4,179*	*1,061,052*	*72,403*	*4,725,769*	n.a.	n.a.
Victoria(*d*)—								
Metropolitan—								
Capital city	1	8	76	18,971	740	n.a.	769,698	38,485
Other	45	715	2,045	505,637	16.093	n.a.	6.583.718	336,977
Outside metropolitan area(*e*)	163	55,387	1,078	264,769	30,469	n.a.	3,642,399	183,825
Total, Victoria	*209*	*56,110*	*3,199*	*789,377*	*47,302*	n.a.	*10,995,815*	*559,287*
Queensland(*a*)—								
Capital city	1	246	644	160,588	5.441	407.223	n.a.	n.a.
Other(*f*)	130	425,980	962	236,845	28,475	580,069	n.a.	n.a.
Total, Queensland	*131*	*426,226*	*1,606*	*397,433*	*33,916*	*987,292*	n.a.	n.a.
South Australia(*a*)—								
Metropolitan—								
Capital city	1	4	20	5,846	437	120,739	308,000	15.390
Other	20	100	602	158,054	5,157	n.a.	1,226.000	61,312
Outside metropolitan area	121	36,857	441	95,205	11,208	n.a.	1,186,000	59,328
Total, South Australia	*142*	*36,961*	*1,064*	*259,105*	*16,802*	n.a.	*2,720,000*	*136,030*
Western Australia(*a*)—								
Metropolitan—								
Capital city	1	16	96	26,845	1,001	5,654	n.a.	13,202
Other	16	107	369	88,003	2.688	137,530	n.a.	9,794
Outside metropolitan area	127	624,466	337	79,469	10,016	185,166	n.a.	4,585
Total, Western Australia	*144*	*624,589*	*802*	*194,317*	*13,705*	*328,350*	n.a.	*27,581*

For footnotes *see* next page.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATEABLE PROPERTY, STATES, 1964-65—*continued*

Location	Number	Area	Population	Dwellings		Value of rateable property		
				Occupied	Unoccupied	Unimproved capital value	Improved capital value	Annual value
		'000 acres	'000 (a)	No. (b)	No. (b)	$'000	$'000	$'000
Tasmania(a)—								
Metropolitan—								
Capital city	1	20	53	15,281	507	96,687	181,105	17,210
Other	2	92	68	14,483	795	47,933	138,976	10,134
Outside metropolitan area	46	16,774	244	61,494	7,280	145,901	529,803	34,173
Total, Tasmania	*49*	*16,885*	*365*	*91,258*	*8,582*	*290,520*	*849,883*	*61,518*

(*a*) Year ended 30 June 1965. (*b*) Particulars of dwellings as at census 30 June 1961. (*c*) Year ended 31 December 1964. (*d*) Year ended 30 September 1965. (*e*) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (*f*) Includes City of Redcliffe and that part of Pine Rivers Shire within the Metropolitan Area of Brisbane but outside the Brisbane City Area.

Local government finances

The following tables show the latest available financial statistics for local government authorities. The figures relate to the year 1964–65 except for New South Wales, where they relate to the year 1964. For further detail on local government finances *see State, Territory and Local Government Authorities' Finance and Government Securities*, Bulletin No. 4, 1965–66, issued by this Bureau.

Ordinary services. In the returns of revenue and expenditure in the following tables the proceeds from loans and expenditure thereof have been excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1964-65

	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A. (c)	Tas. (c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS) ($'000)							
Taxation—							
Rates (net)	107,760	66,231	36,589	18,625	12,216	6,677	249,428
Penalties	1,068	260	..	..	..		
Licences	2,303	486	470	200	222	87	3,768
Total, taxation	*111,131*	*66,977*	*37,059*	*18,826*	*12,438*	*6,765*	*253,195*
Public works and services—							
Sanitary and garbage services	9,465	3,706	7,081	199	1,114	453	22,018
Council properties	9,919	(*d*)12,818	1,859	1,479	5,026	980	32,080
Street construction	7,218	5,438	..	3,584	1,608	58	17,905
Other	13,161	3,177	805	327	989	552	19,011
Total, public works, etc.	*39,763*	*25,138*	*9,745*	*5,589*	*8,737*	*2,042*	*91,014*
Government grants—							
Roads	31,293	718	4,759	(*e*) 7,204	9,109	1,320	54,402
Other	5,504	4,214	788	392	263	315	11,476
Total, government grants	*36,796*	*4,932*	*5,547*	*7,596*	*9,372*	*1,635*	*65,879*
Profits from business undertakings	..	1,123	..	29	..	..	1,152
Fees and fines	..	874	..	..	189	..	1,063
All other	..	1,084	(*f*)16,989	320	4,375	489	23,257
Total revenue	**187,689**	**100,129**	**69,339**	**32,360**	**35,112**	**10,930**	**435,559**

For footnotes *see* next page.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1964–65—*continued*

EXPENDITURE (EXCLUDING LOAN EXPENDITURE) ($'000)

	N.S.W. (*a*)	Vic. (*b*)	Qld (*c*)	S.A. (*c*)	W.A. (*c*)	Tas. (*c*)	Total
General administration	12,223	12,900	5,915	2,931	2,740	1,379	38,089
Debt services (excluding business undertakings)—							
Interest	7,348	5,589	7,995	1,350	2,024	919	25,225
Redemption	12,741	6,907	8,231	2,217	3,072	1,211	34,379
Exchange	23	..	209	..	..	..	232
Other	..	73	123	..	..	..	196
Total, debt, etc.	*20,112*	*12,569*	*16,558*	*3,568*	*5,096*	*2,130*	*60,032*
Public works and services—							
Roads, streets and bridges	81,302	33,263	17,560	19,350	10,413	4,027	165.915
Health administration	5,028	1,033	7,470	591	639	219	39,736
Sanitary and garbage services	12,385	9,546		1,052	1,366	407	
Street lighting	4,164	2,002	1,049	735	477	299	8,726
Council properties	22,706	(*g*)17,454	8,418	3,313	7,606	1,739	61,236
Other	10,335	3,715	275	590	2,417	32	17,365
Total, public works, etc.	*135,919*	*67,013*	*34,773*	*25,631*	*22,919*	*6,723*	*292,978*
Grants—							
Fire brigades	932	1,461	497	250	300	125	3,565
Hospitals and ambulances	519	268	..	668	21	..	1,644
Other charities			..	8	161	..	
Other	(*h*) 5,796	(*i*) 3,292	1,886	85	..	230	11,289
Total, grants	*7,247*	*5,020*	*2,384*	*1,010*	*482*	*355*	*16,498*
All other	5,765	2,528	(*j*)11,100	7	577	690	20,667
Total expenditure	**181,265**	**100,031**	**70,730**	**33,147**	**31,813**	**11,278**	**428,264**

(*a*) Figures for New South Wales relate to the year ended 31 December 1964, and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (*b*) Year ended 30 September 1965. (*c*) Year ended 30 June 1965. (*d*) Includes $6,440,000 plant hire. (*e*) Includes $3,792,000 reimbursement from Highways Department. (*f*) Includes the following reimbursements: $4,280,000 from Main Roads Department, $1,579,000 from other State Government Departments, and $4,951,000 from other sources. (*g*) Includes $1,641,000 plant and equipment. (*h*) To Main Roads Department. (*i*) Includes $1,663,000 to Country Roads Board. (*j*) Includes expenditure on work done for reimbursement: for Main Roads Department $4,345,000; for other State Government Departments $1,671,000; other $4,901,000.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1961 TO 1965

($'000)

Year	N.S.W.(*a*)	Vic.(*b*)	Qld(*c*)	S.A.(*c*)	W.A.	Tas.(*c*)	Total
Revenue(*d*)—							
1961	135,248	71,673	53,397	23,779	(*e*)20,990	7,598	312,685
1962	150,438	78,063	56,940	26,658	(*c*)21,073	8,406	341,578
1963	159,998	83,941	62,668	27,589	(*c*)25,356	9,796	369,349
1964	169,130	89,023	64,388	31,836	(*c*)28,217	10,478	393,072
1965	187,689	100,129	69,339	32,360	(*c*)35,112	10,930	435,559
Expenditure(*d*)—							
1961	135,926	72,827	54,433	24,926	(*e*)21,162	7,673	316,946
1962	149,928	78,142	56,093	26,814	(*c*)20,763	8,161	339,900
1963	159,515	83,714	61,901	27,341	(*c*)25,071	9,434	366,975
1964	165,695	90,538	64,337	32,018	(*c*)28,669	10,282	391,540
1965	181,265	100,031	70,730	33,147	(*c*)31,813	11,278	428,264

(*a*) Years ended previous 31 December. (*b*) Years ended 30 September. (*c*) Years ended 30 June. (*d*) Excludes loan receipts or expenditure. (*e*) Municipalities—years ended 31 October; Road Districts—years ended 30 June.

Business undertakings. The tables following show particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, STATES, 1964–65

($'000)

	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A. (c)	Tas. (c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS)							
Water supply and sewerage—							
Rates	9,033	568	5,989	..	..	3,340	28,523
Charges for services and sales of products . . .	2,509		6,647	6	34	397	
Other (including grants) .	(d) 2,698	13	1,214	..	..	1,032	4,957
Total, water supply, etc. .	*14,240*	*582*	*13,849*	*6*	*34*	*4,770*	*33,480*
Electricity and gas—							
Rates	1,185	..	20	..	..	..	1,204
Charges for services and sales of products . . .	190,353	42,147	28,151	1,059	1,938	..	263,648
Other (including grants) .	5,545	309	4,310	204	..	..	10,367
Total, electricity, etc. .	*197,082*	*42,455*	*32,481*	*1,263*	*1,938*	..	*275,219*
Railways, tramways and omnibuses—							
Charges for services and sales of products . . .	..	..	7,541	..	..	..	7,541
Other (including grants) .	..	..	260	..	..	..	260
Total, railways, etc. .	..	..	*7,801*	..	..	..	*7,801*
Other—	(e)	(f)	(g)	(h)	(i)	(j)	
Rates	27	..	21	..	..	..	49
Charges for services and sales of products . . .	14,093	2,225	1,071	322	192	260	18,164
Other (including grants) .	792	90	25	31	..	290	1,228
Total, other . . .	*14,912*	*2,315*	*1,118*	*353*	*192*	*550*	*19,440*
Grand total . . .	226,234	45,352	55,249	1,621	2,164	5,320	335,941
EXPENDITURE (EXCLUDING LOAN EXPENDITURE)							
Water supply and sewerage—							
Working expenses . .	5,572	375	5,840	7	20	2,147	13,961
Depreciation . . .	(k) –258	49	..	..	..	..	–209
Debt charges . . .	5,543	144	5,475	..	36	2,209	13,407
Other (including transfers to general revenue and construction)	..	5	1,592	..	..	148	1,744
Total, water supply, etc. .	*10,858*	*573*	*12,907*	*7*	*56*	*4,503*	*28,903*
Electricity and gas—							
Working expenses . .	158,304	38,333	22,359	1,050	1,369	..	221,415
Depreciation . . .	(k) 4,236	1,328	..	..	208	..	5,771
Debt charges . . .	22,322	1,551	7,231	84	296	..	31,485
Other (including transfers to general revenue and construction)	..	1,011	2,328	186	..	..	3,525
Total, electricity, etc. .	*184,862*	*42,222*	*31,918*	*1,320*	*1,873*	..	*262,195*
Railways, tramways, and omnibuses—							
Working expenses . . .	..	..	8,128	..	..	..	8,128
Debt charges . . .	..	..	878	..	..	..	878
Other (including transfers to general revenue and construction)	..	..	255	..	..	..	255
Total, railways, etc. .	..	..	*9,261*	..	..	..	*9,261*
Other—	(e)	(f)	(g)	(h)	(i)	(j)	
Working expenses . .	13,497	1,782	491	337	165	338	16,610
Depreciation . . .	99	124	..	..	..	..	223
Debt charges . . .	736	222	91	..	..	57	1,106
Other (including transfers to general revenue and construction)	..	193	148	18	..	..	359
Total, other . . .	*14,332*	*2,322*	*730*	*355*	*165*	*395*	*18,298*
Grand total . . .	210,052	45,117	54,816	1,682	2,093	4,898	318,658

(a) Year ended 31 December 1964. (b) Year ended 30 September 1965. (c) Year ended 30 June 1965. (d) Includes Government grant, $1,848,000, for part of cost of new works borne by Government. (e) Abattoirs. (f) Abattoirs, hydraulic power undertakings, quarries, iceworks, and reinforced concrete pipe and culvert works. (g) Off-street car parking, municipal markets, hostels, hotels, and cinemas. (h) Quarries, hospitals and cinemas. (i) Quarries, canteen and abattoirs. (j) Abattoirs. (k) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, STATES, 1961 TO 1965

($'000)

Year	N.S.W. (*a*)	Vic. (*b*)	Qld (*c*)	S.A. (*c*)	W.A.	Tas. (*c*)	Total
Revenue(*d*)—							
1961 . .	160,553	33,769	32,364	1,255	(*e*) 1,729	3,269	232,939
1962 . .	175,489	35,424	35,718	1,311	(*c*) 1,536	3,691	253,170
1963 . .	194,460	38,305	42,154	1,505	(*c*) 1,857	3,969	282,251
1964 . .	212,020	40,067	50,563	1,889	(*c*) 2,142	4,314	310,995
1965 . .	226,234	45,352	55,249	1,621	(*c*) 2,164	5,320	335,941
Expenditure(*d*)—							
1961 . .	155,170	33,464	34,634	1,243	(*e*) 1,738	3,251	229,500
1962 . .	167,923	35,353	35,452	1,297	(*c*) 1,422	3,618	245,064
1963 . .	183,801	37,982	41,631	1,539	(*c*) 1,789	3,823	270,565
1964 . .	199,171	39,883	50,167	1,745	(*c*) 1,949	4,372	297,288
1965 . .	210,052	45,117	54,816	1,682	(*c*) 2,093	4,898	318,658

(*a*) Years ended previous 31 December. (*b*) Years ended 30 September. (*c*) Years ended 30 June. (*d*) Excludes loan receipts or expenditure. (*e*) Municipalities—years ended 31 October; Road Districts—years ended 30 June.

Loan expenditure. The tables following show particulars of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, STATES 1964–65

($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Ordinary services—							
Roads, bridges, streets, footpaths, drainage, and sewerage	11,896	8,207	23,041	3,668	1,951	1,755	50,518
Council properties . .	(*a*) 9,375	(*a*) 6,249	*a* 6,630	1,285	(*a*) 2,717	(*a*) 631	34,591
Parks, gardens, and recreational reserves . . .	1,965	3,408		678	976	678	
Other	(*b*) 2,410	1,286	1,229	61	205	390	5,579
Total, ordinary services .	*25,645*	*19,151*	*30,900*	*5,692*	*5,849*	*3,453*	*90,689*
Business undertakings—							
Water supply . . .	5,065	208	8,976	..	..	1,095	15,344
Sewerage	3,355	..	..	..	56	1,719	5,130
Electricity and gas . .	25,541	2,587	5,193	22	862	..	34,205
Railways, tramways and omnibuses . . .	..	..	813	..	..	..	813
Abattoirs	2,735	661	..	..	..	87	3,483
Other	..	52	60	..	..	..	113
Total, business undertakings	*36,697*	*3,508*	*15,042*	*22*	*918*	*2,900*	*59,088*
Grand total . . .	62,342	22,659	45,942	5,713	6,767	6,354	149,777

(*a*) Includes plant. (*b*) Includes advances for homes, $724,000.
For years to which particulars relate *see* following table.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE STATES, 1961 TO 1965

($'000)

Year	N.S.W. (*a*)	Vic. (*b*)	Qld (*c*)	S.A. (*c*)	W.A.	Tas. (*c*)	Total
Ordinary services—							
1961 . .	15,189	10,359	22,815	3,579	(*d*) 4,542	2,553	59,038
1962 . .	15,847	10,919	22,653	3,354	(*c*) 5,492	2,774	61,038
1963 . .	19,856	12,478	25,974	4,977	(*c*) 6,836	3,862	73,982
1964 . .	22,725	15,944	32,426	5,383	(*c*) 5,685	4,289	86,453
1965 . .	25,645	19,151	30,900	5,692	(*c*) 5,849	3,453	90,689
Business undertakings—							
1961 . .	30,299	2,736	15,148	82	(*d*) 275	2,707	51,248
1962 . .	28,256	3,605	15,133	43	(*c*) 311	2,884	50,232
1963 . .	36,988	3,665	10,927	114	(*c*) 596	3,350	55,640
1964 . .	34,142	3,513	12,434	94	(*c*) 513	3,142	53,839
1965 . .	36,697	3,508	15,042	22	(*c*) 918	2,900	59,088

(*a*) Years ended previous 31 December. (*b*) Years ended 30 September. (*c*) Years ended 30 June.
(*d*) Municipalities—years ended 31 October; Road Districts—years ended 30 June.

Local government and semi-governmental authorities' debt

Statistics of local government and semi-governmental debt for 1960–61 to 1964–65 are given in the following paragraph. The information covers all local government authorities and those semi-governmental authorities responsible for the provision of the following services.

New South Wales. Water Supply, Sewerage and Drainage, Electricity and Gas Supply, Fire Brigades, Banking, Grain Elevators, Roads and Bridges, Marketing, and Miscellaneous. County Councils are included among these authorities.

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity and Gas Supply, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, and Housing.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Transport, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

South Australia. Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, and Miscellaneous.

Western Australia. Water Supply and Sewerage, Harbours, Transport, Electricity Supply, Fire Brigades, Hospitals, Marketing (Agency), Housing, University of Western Australia, and Miscellaneous.

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, Housing, and Water Supply.

A detailed list of the authorities included is shown in *State, Territory and Local Government Authorities' Finance and Government Securities*, Bulletin No. 4, 1965–66.

The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local government and semi-governmental authorities for the year 1964–65. For greater detail *see State, Territory and Local Government Authorities' Finance and Government Securities.*

LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION, DEBT, AND INTEREST PAYABLE, STATES

1964–65

($'000)

LOCAL GOVERNMENT AUTHORITIES

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
New money loan raisings—							
From government	166	147	2,806	726	71	9	3,925
From public	34,710	23,269	31,794	5,356	7,458	6,208	108,794
Total loan raisings	*34,876*	*23,415*	*34,600*	*6,082*	*7,529*	*6,217*	*112,719*
Funds provided for redemption—							
Government loans	203	137	1,806	1,157	1	67	3,371
Loans due to public	15,501	10,384	14,340	1,115	3,341	1,672	46,354
Total funds, redemptions	*15,704*	*10,521*	*16,147*	*2,271*	*3,342*	*1,740*	*49,725*
Accumulated sinking fund balance	8,568	8,778	17,486	. .	133	778	35,743
Debt—							
Due to government	3,480	7,071	34,448	4,428	71	931	50,428
Due to banks (net overdraft)	44	880	. .	. .	29	. .	954
Due to public creditor(*a*)	233,188	148,665	273,969	26,809	44,014	42,375	769,019
Total debt(a)	*236,712*	*156,616*	*308,417*	*31,237*	*44,114*	*43,305*	*820,400*
Maturing overseas(*a*)(*b*)	. .	. .	5,043	. .	. .	. .	5,043
Annual interest payable(*a*)	(*c*)11,549	8,239	16,231	1,565	2,360	2,309	(*c*)42,251

SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
New money loan raisings—							
From government	32,535	48,728	4,047	26,890	10,336	20,051	142,587
From public	70,286	100,453	28,093	10,349	12,538	3,990	225,708
Total loan raisings	*102,821*	*149,180*	*32,140*	*37,239*	*22,874*	*24,041*	*368,295*
Funds provided for redemption—							
Government loans	6,812	5,468	1,281	3,448	1,748	2,339	21,095
Loans due to public	22,530	12,825	9,591	170	3,360	1,312	49,788
Total funds, redemptions	*29,341*	*18,293*	*10,871*	*3,618*	*5,108*	*3,652*	*70,883*
Accumulated sinking fund balance	101,736	38,572	17,481	2,031	6,065	2,842	168,727
Debt—							
Due to government	498,080	597,146	57,576	339,035	212,243	250,614	1,954,694
Due to banks (net overdraft)	3,292	771	. .	36	317	. .	4,417
Due to public creditor(*a*)	782,556	1,315,574	243,419	113,807	68,499	49,639	2,573,493
Total debt(a)	*1,283,927*	*1,913,491*	*300,995*	*452,878*	*281,059*	*300,253*	*4,532,604*
Maturing overseas(*a*)(*b*)	10,000	9,718	. .	. .	. .	. .	19,718
Annual interest payable(*a*)	(*c*)62,487	92,783	15,618	20,882	12,255	13,631	*c* 217,656

(*a*) Includes debt or interest payable in London and New York. Debt in London is payable in £ sterling which have been converted at the I.M.F. rate of £Stg1 to $A2.50; New York debt is payable in U.S. dollars which have been converted at the I.M.F. rate of $U.S.1.12 to $A1. (*b*) Included in debt figures above. (*c*) Excludes amounts of annual interest payable on net overdraft—New South Wales.

In the table above and the following table debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalised), trade creditors, amounts held in trust, and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalised. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION AND DEBT, AUSTRALIA, 1960–61 TO 1964–65

($'000)

	1960–61	1961–62	1962–63	1963–64	1964–65
LOCAL GOVERNMENT AUTHORITIES					
New money loan raisings—					
From government	5,911	3,659	5,377	6,700	3,925
From public	71,488	91,148	103,932	107,047	108,794
Total loan raisings	*77,399*	*94,807*	*109,309*	*113,746*	*112,719*
Funds provided for redemption—					
Government loans	3,152	3,047	2,998	3,361	3,371
Loans due to public	28,324	30,725	36,565	40,371	46,354
Total funds, redemptions	*31,476*	*33,772*	*39,563*	*43,732*	*49,725*
Accumulated sinking fund balance	33,210	36,549	36,930	36,720	35,743
Debt—					
Due to government	40,953	43,986	46,649	50,024	50,428
Due to banks (net overdraft)	1,051	1,385	1,724	1,167	954
Due to public creditor(*a*)	516,514	579,659	640,935	707,863	769,019
Total debt(*a*)	*558,519*	*625,030*	*689,308*	*759,054*	*820,400*
Maturing overseas(*a*)(*b*)	11,001	10,643	8,257	7,900	5,043
SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES					
New money loan raisings—					
From government	124,293	126,106	131,127	146,726	142,587
From public	144,289	180,881	218,115	221,299	225,708
Total loan raisings	*268,582*	*306,987*	*349,242*	*368,025*	*368,295*
Funds provided for redemption—					
Government loans	16,839	17,670	18,102	19,782	21,095
Loans due to public	34,977	37,689	44,492	42,314	49,788
Total funds, redemptions	*51,816*	*55,359*	*62,594*	*62,097*	*70,883*
Accumulated sinking fund balance	115,115	127,048	139,117	153,587	168,727
Debt—					
Due to government	1,463,645	1,572,482	1,702,593	1,829,801	1,954,694
Due to banks (net overdraft)	12,186	11,688	7,333	2,829	4,417
Due to public creditor(*a*)	1,830,308	1,992,297	2,187,816	2,381,829	2,573,493
Total debt(*a*)	*3,306,139*	*3,576,467*	*3,897,743*	*4,214,458*	*4,532,604*
Maturing overseas(*a*)(*b*)	23,286	23,266	23,244	23,222	19,718

(*a*) *See* footnote (*a*) page 843. (*b*) Included in debt figures above.

Roads and bridges

Commonwealth Government grants

The following table shows the allocation to the States under the several Commonwealth Aid Roads Acts for road construction, maintenance, repair and other works connected with transport for each of the years 1961–62 to 1965–66. After 1 July 1959, when the *Commonwealth Aid Roads Act* 1959 came into operation, the Commonwealth made separate provision for expenditure on strategic roads and the promotion of road safety practices. *See also* the chapter Public Finance, and Finance bulletins.

ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE COMMONWEALTH AID ROADS ACTS, STATES, 1961-62 TO 1965-66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1961–62 . .	27,622	20,160	18,186	11,504	17,528	5,000	100,000
1962–63 . .	29,880	21,754	19,592	12,400	18,974	5,400	108,000
1963–64 . .	32,442	22,824	21,070	13,338	20,526	5,800	116,000
1964–65 . .	36,346	25,576	23,670	14,902	23,006	6,500	130,000
1965–66 . .	39,191	27,508	25,538	16,024	24,739	7,000	140,000

New South Wales

Main roads administration is organised as a separate department under the control of a Commissioner. The activities of the Department of Main Roads include works on main, developmental, secondary and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed and maintained from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system. Public roads may be proclaimed (*see* page 463) by the Governor as main roads on the recommendation of the Commissioner for Main Roads.

In the County of Cumberland, which for the purposes of the Main Roads Act is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of road and bridge construction is met from the funds of the Department of Main Roads. The Councils do not contribute directly to the cost of these works but are required to pay a levy of 0.2083 cents in the $ on the unimproved capital value of rateable property within Council's area or at a uniform percentage determined annually by the Commissioner of between ten per cent and fifteen per cent of Council's total rate income, whichever is the less. In the former case the rate payable in respect of lands used principally for primary production is half the rate levied on other lands.

In country districts the Department meets the full cost of road and bridge works on State highways, the full cost of bridge construction works and three-quarters of the cost of road construction and road and bridge maintenance works on trunk roads, and three-quarters of the cost of bridge construction works and two-thirds of the cost of road construction and road and bridge maintenance works on ordinary main roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition. The Department of Main Roads generally meets half the cost of works on secondary roads and on tourist roads.

Length of roads. The *total length of proclaimed roads* (*see* page 463) in New South Wales at 30 June 1966 was 25,589 miles classified as: State highways, 6,530 miles; trunk roads, 4,159 miles; ordinary main roads, 11,661 miles; secondary roads, 144 miles; developmental roads, 2889 miles; and tourist roads, 206 miles. The length of main roads (highways, trunk and ordinary main roads) maintained by the Department of Main Roads at 30 June 1966 was 6.036 miles (27 per cent) while the length maintained by Councils was 16,314 miles (73 per cent). These figures exclude secondary, developmental and tourist roads, and unclassified roads in the Western Division of the State. In the area outside the County of Cumberland (the metropolis and adjoining areas) the proportions of main roads maintained by the Department and Councils respectively were: State highways, 75 per cent, 25 per cent; and trunk and ordinary main roads, 5 per cent, 95 per cent. Unclassified roads in the Western Division of the State, totalling 1,137 miles, were maintained by the Department, while developmental roads, totalling 2,889 miles, were maintained by Councils. In the County of Cumberland the proportions of main roads maintained by the Department and Councils respectively were: State highways, 98 per cent, 2 per cent; and ordinary main roads, 57 per cent, 43 per cent. Secondary roads totalling 144 miles were maintained by Councils. Of the 206 miles of tourist roads throughout the State, 177 miles (86 per cent) were maintained by Councils and 29 miles (14 per cent) by the Department. In 1966 the *total length of all roads* in New South Wales was estimated at 131,043 miles. The length of roads, according to their surface, were as follows: bitumen or concrete, 28,575 miles; gravel or stone, 44,594 miles; formed only, 26,911 miles; cleared only, 30,963 miles.

Department of Main Roads—operations. Progress has continued with the implementation of the Department's plan for main roads development in the County of Cumberland. Most of the Department's proposals have been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the Local Government (Amendment) Act, 1951. The Department's proposals for the development of the main roads system in Newcastle and the surrounding districts have been largely incorporated in the Northumberland County District Planning Scheme, and some sections of the system have been constructed. With some modifications, the Department's proposals for the planning of the main roads in the Wollongong-Port Kembla district have been incorporated in the planning scheme prepared by the Illawarra Planning Authority. The Commissioner for Main Roads is a member of the State Planning Authority which was established in June 1964 to co-ordinate these and other planning schemes throughout the State.

During 1965–66, 66 new bridges were constructed. In addition, 72 concrete box culverts each having a waterway width of twenty feet or more were completed. Major bridge works under construction included 17 steel and/or concrete bridges each costing over $100,000.

Department of Main Roads—revenue and expenditure. The funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act, 1958, grants under Commonwealth Aid Roads Act (*see* page 844 and the chapter Public Finance), other grants from the State or Commonwealth Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act, 1924–1965. The State Government also makes repayable advances for Main Roads Department works, and since 1963 the Commissioner for Main Roads has had the power (with the approval of the Governor on the recommendation of the Treasurer) to borrow moneys.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES REVENUE AND EXPENDITURE, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
REVENUE(*a*)					
Motor vehicle taxation, registration and licence fees	25,366	30,327	38,682	41,059	42,471
Commonwealth Aid Roads Act	17,873	19,080	20,617	22,934	24,648
State and Commonwealth grants	1,408	475	197	70	35
Contributions by other departments and bodies	475	342	326	97	243
Local authorities' contributions—					
Under Section 11 of Main Roads Act	4,289	4,506	5,273	5,768	6,418
Other	250	229	490	91	157
Other	322	277	343	531	673
Total	**49,983**	**55,234**	**65,929**	**70,549**	**74,645**
EXPENDITURE(*b*)					
Roads and bridges—					
Construction	37,874	38,000	48,199	56,153	61,714
Maintenance	12,686	12,661	16,209	16,514	15,813
Administration	2,257	2,632	2,820	3,425	3,757
Interest, exchange, etc., on debt	505	566	986	1,237	926
Other(*c*)	1,064	1,242	1,376	1,125	1,378
Total	**54,387**	**55,100**	**69,589**	**78,454**	**83,588**

(*a*) Excludes repayable advances by the State Government and private loans ($1,270,000 in 1961–62, $1,780,000 in 1962–63, $4,020,000 in 1963–64, $7,500,000 in 1964–65, and $5,005,000 in 1965–66), and transfers from Sydney Harbour Bridge Account for Expressway construction ($3,644,000 in 1961–62, $4,162,000 in 1962–63, $3,078,000 in 1963–64, $2,360,000 in 1964–65, and $4,750,000 in 1965–66). Expenditure from these amounts is fully reflected in Expenditure. (*b*) Excludes debt redemption ($106,150 in 1961–62, $114,176 in 1962–63, $123,992 in 1963–64, $177,406 in 1964–65 and $213,062 in 1965–66) and repayment of government advances ($120,000 in 1962–63, $120,000 in 1963–64, $1,020,000 in 1964–65, and $200,000 in 1965–66). (*c*) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in 'Roads and bridges'.

Figures shown on page 846 represent the aggregate revenue and expenditure of five funds: the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

Sydney Harbour Bridge. The Sydney Harbour Bridge was opened for traffic on 19 March 1932. The main span is 1,650 feet and clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway of eight traffic lanes and two railway tracks, and there is also a footway on each side. The capital cost of the bridge and associated roadways to 30 June 1966 was $27,294,000, but this amount will be reduced slightly on completion of the disposal of the remaining surplus resumed property. The portion met from repayable loan funds, almost $24,000,000, is repayable from toll income. Income for 1965–66 amounted to $4,301,000, including road tolls, $3,859,000; railway passenger tolls, $281,000; and omnibus passenger tolls, $29,000. Expenditure amounted to $2,504,000, including interest, exchange, flotation expenses, etc., $859,000; sinking fund, $323,000; maintenance, $568,000. The accumulated surpluses of the Bridge Account have been used to finance conversion of tram tracks to roadway on, and the construction of expressway-type approaches to, the bridge. From 1957–58 to 1965–66 a total of $2,011,000 was expended on tram track conversion and $20,454,000 on the bridge expressway-type approaches. The account showed a deficiency of $1,850,000 at 30 June 1966. During 1965–66, 37,897,966 road vehicles (excluding omnibuses and exempt vehicles), 25,712,317 rail travellers and 13,318,652 omnibus travellers crossed the bridge, contributing respectively 92 per cent, 7 per cent, and 1 per cent of the total toll revenue.

Victoria

With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance; and to recommend deviations in existing roads or the construction of new roads in order to facilitate communications or to improve the conditions of traffic.

Length of roads. The total length of *roads declared* (*see* page 463) by the Country Roads Board in Victoria at 30 June 1966 was 14,502 miles, classified as follows: State highways, 4,465 miles; main roads, 9,094 miles; by-pass roads, 37 miles; tourist roads, 445 miles; forest roads, 461 miles. The length of the surface sealed (bitumen or concrete) included in the foregoing mileage was 12,569 miles or 87 per cent of the total. In addition to the 14,502 miles of classified roads, there were approximately 85,000 miles of unclassified roads at 30 June 1966. The *total length of roads and streets* in Victoria at 30 June 1966 is estimated as: bitumen or concrete, 27,007 miles; gravel or stone, 29,621 miles; formed only, 20,921 miles; cleared only, 21,934 miles; total, 99,483 miles.

Country Roads Board—operations. During 1965–66, 1,896 miles of declared roads under the Board's control were treated with bitumen. In addition, 1,031 miles of undeclared roads, for which the Board contributed funds, were similarly treated. The total length of bitumen treatment carried out in 1965–66 was 3,067 miles (including 140 miles for other authorities). Of the work on the roads under the Board's control in 1965–66, 754 miles related to State highways and by-pass roads. During 1965–66, 175 bridge projects of an estimated total value of $5,060,000 were initiated. Of these, 112, estimated to cost $1,974,000, were under municipal supervision.

Country Roads Board—receipts and payments. The funds of the Country Roads Board are derived principally from motor registration fees, two-thirds of additional registration fees (charged on initial registration or transfer), a proportion of drivers' licence fees, fines, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, road charges under the Commercial Goods Vehicles Act, and repayments by municipalities. As from 1 July 1964 proceeds from fines are paid to consolidated revenue, but an equivalent amount to replace them is made available to the Board from the loan fund. In addition, loans have been authorised from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' roads, and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. During 1965–66 loan receipts and payments each amounted to $1,020,000. The total loan expenditure to 30 June 1966 was $33,983,016. This figure does not include loan expenditure from the Developmental Roads Loan Account, a fund which was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan money raised on this account was exhausted at 30 June 1937, the total expenditure at that date being $12,851,516. In 1965–66 $2,272,642 was allocated to the Board for expenditure on certain special road projects. This was part of the revenue raised by the increase in motor registration fees under the *Roads (Special Projects) Act* 1965.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Motor vehicle registration fees(*a*)	19,059	20.579	22,669	22,588	23,787
Drivers' licence fees(*a*)	520	637	595	603	715
Drivers' licence testing fees	154	149	162	187	188
Municipalities' payments	1,555	1,764	1,579	1,690	1,691
Commonwealth Aid Roads Acts(*b*)	19,755	21,351	22,431	25,182	27,175
Roads (Special Projects) Fund	..	..	..	..	2,273
Loans from State Government	1,366	602	666	762	1,020
Road charges Commercial Goods Vehicles Act	4,525	4,919	5,638	5,926	6,379
Public Works Loan Application Act	..	..	..	700	768
Other	(*c*) 1,151	168	223	889	971
Total	**48,086**	**50,169**	**53,964**	**58,527**	**64,966**
PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways	13,673	13,210	19.151	17,081	17,704
Main roads	14,853	13,496	14,889	15,189	16,569
By-pass roads	1,365	863	2,641	4,854	3,745
Tourist roads	1,146	939	1,425	1,422	1,510
Forest roads	590	553	742	714	699
Unclassified roads	10,386	9,668	10,107	11,131	12,709
Other	139	139	87	167	140
Plant purchase	349	1,832	1,193	697	1,149
Interest, debt redemption, etc.	1,855	1,931	1,950	1,988	2,056
Office building, Kew—capital cost	39	542	378	71	12
Statutory payment to—					
Tourists' Resorts Fund	383	395	427	469	468
Transport Regulation Board	..	..	..	..	178
Administration and other	3,303	3,813	3,769	4,744	6.339
Total	**48,082**	**47,378**	**56,758**	**58,525**	**63,278**

(*a*) After deducting costs of collection. Prior to 1 January 1965 one half of the drivers' licence fees was credited to the funds of the Country Roads Board while the remaining half was credited to the Municipalities Assistance Fund. Since that date, of the total amount collected, one quarter is paid to the Country Roads Board, one quarter is paid to the Municipalities Assistance Fund, and one half is paid to Consolidated Revenue. (*b*) Excludes portion of Commonwealth Aid Roads Acts advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc. (*c*) Includes $1,000,000 Special Grant from Commonwealth Government.

Melbourne and Metropolitan Board of Works. Since assuming responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, a tentative construction programme of urgent highway works throughout the metropolitan area of Melbourne has been adopted. Expenditure on these projects up to 30 June 1966 was $8,912,970.

Level crossings. In 1954–55 the Level Crossings Fund was created under the *Country Roads and Level Crossings Funds' Act* 1954 to finance (*a*) the elimination of level crossings or the provision of alternative routes to enable road traffic to avoid level crossings; (*b*) the provision of lights, signs, and lighting at, and the improvement of approaches to, level crossings; and (*c*) generally, the reduction of danger at level crossings. The Act provides for the payment into the Fund of one-third of all moneys received by way of additional motor registration fees and money provided under any other Act. The amount available for expenditure in 1965–66 was $752,249, consisting entirely of receipts from owners' certificates. Expenditure from the Fund amounted to $464,922, of which $338,932 was incurred by the Railways Department and $125,990 by the Country Roads Board, leaving a balance carried forward of $1,021,299.

Queensland

The Department of Main Roads was constituted in February 1951, with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, and secondary roads; and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

Length of roads. The total length of *declared roads* (*see* page 463) in Queensland at 30 June 1966 was 24,438 miles; comprising State highways, 6,331 miles; main roads, 5,176 miles; developmental roads, 4,377 miles; and secondary roads, 8,554 miles. By the amendments to the Main Roads Act published in the Government Gazette of 6 April 1959, mining access, farmers' and tourists roads became secondary roads, and the provisions relating to the declaration of tourist tracks were repealed. The *total length of roads and streets* in Queensland at 30 June 1966 was: bitumen or concrete, 15,555 miles; gravel or stone, 19,854 miles; formed only, 42,803 miles; cleared only, 43,340 miles; total, 121,552 miles.

Department of Main Roads—operations. During 1964–65 the Department completed 1,806 miles of roads, including new construction and stage construction. Bridges of all types to a length of 7,806 linear feet were constructed, bringing the total constructed by the Department at 30 June 1965 to 247,168 feet. In addition, at 30 June 1965, 10,532 feet were under construction.

Department of Main Roads—receipts and payments. The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc. under the Transport Acts, contributions under the Commonwealth Aid Roads Acts, and loans, grants and advances from the State Government. The total receipts and payments during each of the years 1960–61 to 1964–65 are shown below.

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS 1960–61 TO 1964–65

($'000)

	1960–61	1961–62	1962–63	1963–64	1964–65
RECEIPTS					
Motor vehicle registration, Transport Acts collections, fees, etc.	11,138	11,627	12,339	13,664	15,531
Loans from State Government	..	1,820	1,668	1,046	1,039
Grants from State Government	..	..	104	260	..
Roads (Contribution to Maintenance) Act	1,667	1,818	2,201	2,558	3,027
Commonwealth Aid Roads and Works Acts	16,537	19,203	20,854	24,877	27,919
Maintenance repayments—local authorities	1,446	1,494	1,555	1,586	1,125
Hire, rent, sales of plant, etc.	2,439	2,571	2,966	3,322	3,704
Other	1,047	1,217	1,275	2,126	2,043
Total	**34,275**	**39,750**	**42,962**	**49,439**	**54,388**
PAYMENTS					
Permanent road works and surveys(a)	22,604	26,371	28,847	34,345	39,993
Maintenance of roads	4,913	5,758	5,939	6,507	6,466
Plant, machinery, buildings, etc. (including plant maintenance)	2,790	3,039	2,573	3,351	3,735
Loans—Interest	215	168	120	132	203
Redemption	637	644	650	666	697
Administration and other	3,043	3,575	4,063	4,828	5,618
Total	**34,201**	**39,554**	**42,192**	**49,829**	**56,712**

(a) Includes grants to local authorities for road purposes.

South Australia

The Highways and Local Government Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to councils for roadworks and supervise the expenditure of these grants, and assist Councils to purchase road-making plant and to defray the cost of roadworks. In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads. Funds of the Department are derived mainly from the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils, and contributions by the Municipal Tramways Trust, and from contributions under the Commonwealth Aid Roads Acts.

Length of roads. In South Australia there are only two classifications of roads. These are main roads proclaimed (*see* page 463) under the provisions of the Highways Act and all other roads, commonly designated district roads. At 30 June 1966 there were 8,193 miles of *proclaimed main roads* and approximately 66,788 miles of district roads, including roads and tracks outside local government areas, totalling 74,981 miles. *Total lengths of roads,* classified by surface, were estimated to be: bitumen or concrete, 7,940 miles; gravel or stone, 15,950 miles; formed only, 10,538 miles; unformed, 40,553 miles.

State Highways and Local Government Department receipts and payments. The following table shows particulars of receipts and payments, during the years 1961–62 to 1965–66, of funds controlled by the Highways and Local Government Department.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA RECEIPTS AND PAYMENTS, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Motor vehicles registration, licences, fees	8,586	9,074	9,978	12,075	11,206
Commonwealth Aid Roads Acts	11,505	12,400	13,337	14,903	16,024
Loans from State Government	400	580	950	..	..
Other(*a*)	1,068	1,166	1,210	1,359	3,340
Total	**21,558**	**23,220**	**25,476**	**28,337**	**30,570**
PAYMENTS					
Construction and reconstruction of roads and bridges(*b*)	14,616	15,358	19,517	18,339	20,623
Maintenance(*a*)(*b*)	4,674	4,976	5,583	5,277	5,375
Recoups to Consolidated Revenue Fund—interest, debt redemption and exchange	454	486	512	1,164	1,167
Advances to local and semi-governmental authorities	840	1,162	1,650	1,126	1,376
Stores, plant, machinery, suspense accounts, etc.(*c*)	814	−144	538	909	1,503
Total	**21,398**	**21,837**	**27,801**	**26,815**	**30,044**

(*a*) Includes reimbursement works for Commonwealth Government. (*b*) Includes administration expenses. (*c*) Represents gross repayments less recoveries by charges to works on account of depreciation and materials used.

Western Australia

Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government, through the Main Roads Department, and by local government authorities throughout the State. The Department operates under the *Main Roads Act, 1930–1966*, and is administered by a Commissioner of Main Roads responsible to the Minister for Works. The Act makes provision for public roads in the categories of main roads, controlled-access roads and developmental roads (*see* page 463). An additional category, that of important secondary roads, is used by the Department in determining its works programme. Within its own district each local government authority is responsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authority is required by the Main Roads Act to maintain any developmental road situated in its district.

Length of roads. The *total length of constructed roads for which financial provision was made by the Main Roads Department* at 30 June 1966 was: main roads, 3,465 miles, including seven miles of controlled-access roads; important secondary roads, 7,958 miles; and developmental roads, 43,330 miles. In addition, there were 74 miles gazetted as controlled-access roadway as yet not constructed. The *total length of roads and streets* in Western Australia at 30 June 1966 was made up as follows: bitumen or concrete, 12,977 miles; gravel or stone, 22,917 miles; formed only, 44,860 miles; cleared only, 27,843 miles; total, 108,597 miles.

Main Roads Department—operations. During the year 1965–66 the activities of the Department included clearing, 2,808 miles; forming, 3,964 miles; gravelling, 2,311 miles; reconditioning, 8,862 miles; and stabilising, 87 miles. In addition, 1,797 miles were primed and sealed (including widening). New and replacement bridges constructed totalled fifty, while seven bridges were widened.

Main Roads Department—receipts and payments. The funds of the Main Roads Department are derived principally from allocations made under the *Commonwealth Aid Roads Act* 1964. In addition, financial assistance was given by the Commonwealth Government to the extent of $1,500,000 in 1965–66 for the improvement of roads used for the transport of beef cattle in the Kimberley District. For the five-year period ended 30 June 1966 additional grants totalling $6,900,000 were received from Commonwealth funds and were matched by a corresponding State contribution. In 1966–67 a further $1,500,000 will be received from the Commonwealth. Other sources of income include overload permit fees, one-half of the net amount of traffic fees collected in the Metropolitan Traffic Area, and an allocation from drivers' licence fees. Further moneys for expenditure on road maintenance are available under the *Road Maintenance (Contribution) Act, 1965*, administered by the Commissioner of Transport. Receipts for the year ended 30 June 1966 amounted to $391,902, and there were no disbursements to that date. (Outside the Metropolitan Traffic Area motor vehicle licence fees are collected and retained by the local authorities with the provision that from 1 January 1965 they are required to contribute to the Central Road Trust Fund the amount of their annual vehicle licence collections which exceeds that of the base year 1958–59. Such amount is reimbursed together with an addition of 75 per cent from Commonwealth matching grants.) Receipts and payments for the years 1961–62 to 1965–66 are shown in the following table.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA RECEIPTS AND PAYMENTS, 1961–62 TO 1965–66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Motor vehicle registration, licences, fees, etc.	1,561	2,014	2,335	3,370	4,054
Commonwealth Aid Roads Acts . .	15,506	16,256	16,987	21,945	22,618
Commonwealth Aid Roads Acts—matching grants	1,482	2,000	2,460	. .	463
Western Australia Grant (Beef Cattle Roads) Act	1,000	1,400	1,500	1,500	1,500
Commonwealth-State Grant for restoration of flood-damaged roads .	640	. .	. .	. .	. .
Recoups from other authorities . .	494	740	1,124	1,455	917
Other	11	14	71	52	(*a*) 2,024
Total	**20,694**	**(*b*)22,424**	**(*c*)24,477**	**28,322**	**31,576**

For footnotes *see* next page.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS, 1961–62 TO 1965–66—*continued*

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
PAYMENTS					
Construction and reconstruction of roads and bridges(*d*)	12,940	14,534	13,872	18,110	21,012
Maintenance of roads and bridges(*d*)	2,172	2,015	2,561	2,196	1,856
Grants to local authorities, etc.	2,873	2,546	2,940	2,939	3,501
Transfer to State Consolidated Revenue	140	140	140	..	..
Plant, machinery, etc.	480	971	1,146	1,587	1,709
Other(*d*)	775	876	1,405	1,530	1,861
Total	**19,380**	**21,082**	**(*e*)22,064**	**(*f*)26,362**	**29,939**

(*a*) Includes $1,896,000 transferred from an Overhaul Account previously administered by the Public Works Department. (*b*) Excludes $1,400,000 advance from State Treasury. (*c*) Excludes $1,000,000 advance from State Treasury. (*d*) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials. (*e*) Excludes $1,400,000 refund of advance from State Treasury. (*f*) Excludes $1,000,000 refund of advance from State Treasury.

Tasmania

Under the *Road Construction (Transfer of Functions) Act* 1951, which came into operation on 1 July 1951, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorised by the Minister in respect of roads classified as State highways, tourist and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the Road Construction (Transfer of Functions) Act for certain works authorised by the Transport Commission to be carried out and constructed by the Department. The expenditure by the Public Works Department during 1965–66 on the construction and maintenance of roads, tracks and bridges amounted to $15,326,140, of which $9,948,084 was charged to road funds, $15,623 to revenue, $4,423,476 to loan, and $938,957 to other funds. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

Length of roads. The length of *classified roads* (*see* page 463) at 30 June 1966 was 2,246 miles, comprising State highways, 1,205 miles; main roads, 662 miles; secondary roads, 196 miles; tourist roads, 47 miles; and other roads, 136 miles. The mileages of sealed (bitumen or concrete) roads and their proportions to the respective totals were: State highways, 955 miles (79 per cent); main roads, 441 miles (67 per cent); secondary, tourist and other roads, 96 miles (25 per cent). The total length of classified sealed roads was 1,492 miles (66 per cent). The total length of local authorities roads at 30 June 1966 was 8,727 miles, comprising bitumen or concrete, 1,354 miles (16 per cent); gravel or stone, 6,109 miles (70 per cent); formed only or cleared only, 1,264 miles (14 per cent). Roads of other authorities (Hydro-Electric Commission, Forestry Commission and Closer Settlement Board) totalled 1,854 miles.

The *total length of all roads* in Tasmania at 30 June 1966 was 12,827 miles, comprising bitumen or concrete, 2,893 miles (23 per cent); gravel or stone, 8,664 miles (68 per cent); formed only or cleared only, 1,270 miles (10 per cent).

Combined road funds—receipts and payments. The table following shows particulars of the receipts and payments of the combined Road Funds for the years 1961–62 to 1965–66.

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS, 1961-62 TO 1965-66

($'000)

	1961–62	1962–63	1963–64	1964–65	1965–66
RECEIPTS					
Motor vehicle taxation and registration, licences, fees, fines, etc.	2,509	2,833	3,019	3,153	3,425
Commonwealth Aid Roads and Works Acts	5,000	5,400	5,800	6,500	7,000
Recoups from local authorities, etc.	17	19	14	16	18
State Loan Fund	4,125	3,854	4,761	3,468	4,446
Hire of plant and workshop charges	2,905	2,949	3,165	3,329	3,732
Other	(*a*) 992	(*a*) 682	(*a*) 465	(*a*) 1,295	220
Total	**15,547**	**15,737**	**17,224**	**17,761**	**18,842**
PAYMENTS					
Construction and reconstruction of roads and bridges	9,182	9,801	11,239	11,420	11,591
Maintenance of roads and bridges	2,518	2,567	2,586	2,552	3,141
Other works connected with transport	38	46	72	76	62
Grants to local authorities	(*b*) 235	(*b*) 50	33	15	35
Purchase, maintenance and operation of plant	2,919	3,070	3,231	3,402	3,751
Other	172	147	220	383	300
Total	**15,064**	**15,682**	**17,382**	**17,848**	**18,881**

(*a*) Includes Commonwealth Employment Stimulation Grant ($733,912 in 1961–62, $507,554 in 1962–63, $15,302 in 1963–64, and $14,946 in 1964–65). (*b*) Includes grants under Commonwealth Employment Stimulation Grant ($206,912 in 1961–62 and $22,260 in 1962–63).

Summary of roads open for general traffic

The tables showing road lengths in the several States and Territories classified according to class of road and surface of road formerly included in this section have been transferred to Chapter 13, Transport, Communication and Travel.

Aggregate net expenditure on roads and bridges in Australia

In most States there are three classes of authorities concerned with roads and bridges, the State Government, the central road authority, and numerous local government bodies. The Commonwealth Government, in addition to the grants it makes to the States for road purposes, is concerned with roads in the Northern Territory and the Australian Capital Territory and roads of access to Commonwealth property in the various States. Some information relating to Commonwealth grants to the States for road purposes and particulars of the expenditure on roads and bridges by local government bodies and the central road authorities are given in preceding sections of this chapter.

Most of these authorities may expend money directly on road construction or indirectly by means of grants and payments to other authorities. These indirect payments, if included in an aggregate, would duplicate expenditure; this, together with the fact that some authorities are unable to supply separate information concerning their road expenditure, makes it difficult to compile precise statistics of aggregate expenditure on roads and bridges.

The information in the following table, which is partly estimated and which excludes the main indirect payments, provides an approximate measure of the aggregate net expenditure by the three classes of authorities mentioned above on roads and bridges in Australia during each of the years ended 30 June 1962 to 1966. Expenditure on roads by those authorities whose primary activity is directed towards functions other than roads, e.g. electricity, forestry, housing, etc. authorities, is not included. The figures cover expenditure on the construction, reconstruction and maintenance of roads and bridges, and direct administration but not debt charges. Because of the difficulties associated with the indirect payments mentioned above, it is not possible to give separate net details for each authority.

PUBLIC AUTHORITY NET EXPENDITURE ON ROADS AND BRIDGES STATES AND TERRITORIES, 1961–62 TO 1965–66

($ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
1961–62 . .	104	78	49	29	23	16	8	307
1962–63 . .	108	77	55	30	26	17	10	324
1963–64 . .	127	89	65	35	27	18	9	370
1964–65 . .	142	94	71	35	34	17	10	404
1965–66 . .	156	103	68	38	37	19	15	437

Water supply, sewerage and drainage

The information in this section relates primarily to the metropolitan areas and provincial cities and towns. For information on water supply and irrigation in rural areas *see* the chapter Water Conservation and Irrigation.

New South Wales

The two largest domestic water supply and sewerage systems are controlled by statutory boards, each consisting of a president and a vice-president appointed by the State Government, and five members elected by local councils. These are (*a*) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e. in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, Shellharbour and Kiama, and (*b*) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill and Cobar similar boards include representatives of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

Metropolitan and Hunter District water supply (*to* 30 *June* 1966). The storage reservoirs of the *metropolitan system* with a combined available capacity of 574,730 million gallons, drain catchment areas of 3,860 square miles (Warragamba, 3,480 square miles, Upper Nepean, 347 square miles, and Woronora, 33 square miles). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October 1960. This dam, constructed in concrete, has a storage capacity of 452,505 million gallons. Its safe net draught is estimated to be 274 million gallons a day. A hydro-electric power station at the dam generated 341 million kWh in 1963–64, but, because of dry conditions, only 1 million kWh in 1965–66. At 30 June 1966 there were 169 service reservoirs in use with a combined capacity of 663 million gallons. Rating for water for 1965–66 was 3.75 cents in the $ of assessed annual value. For water in excess of the allowance provided for in the rate (calculated at 30 cents per 1,000 gallons) the charge was 28 cents per 1,000 gallons.

The water supply of the *Hunter District system* is drawn principally from three sources: the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens, and the Grahamstown Water Supply Scheme which is still being developed. Another source of supply is provided by the Nelson Bay-Anna Bay Scheme. Service reservoirs and tanks distributed throughout the water supply district have a total storage capacity of 125 million gallons. Water rating for 1965–66 was 6.9792 cents in the $ of assessed annual value. The price of water to domestic and industrial consumers is 27.5 cents per 1,000 gallons.

The following tables show, for the Metropolitan and Hunter District systems, the number of properties, the estimated population supplied, and other details.

METROPOLITAN WATER SUPPLY(*a*), NEW SOUTH WALES
SERVICES, 1961-62 TO 1965-66

Year	Improved properties for which water mains available	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of mains	Number of meters
					Per property	Per head of estimated population		
		'000	mill. gals.	mill. gals.	gallons	gallons	miles	
1961–62 . .	634,139	2,481	221	80,556	348	89	6,945	430,588
1962–63 . .	653,674	2,544	234	85,282	357	92	7,173	438,585
1963–64 . .	669,948	2,600	255	93,211	381	98	7,397	457,215
1964–65 . .	693,185	2,660	290	105,892	418	109	7,649	479,321
1965–66 . .	712,059	2,723	230	83,802	323	84	7,972	495,850

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

HUNTER DISTRICT WATER SUPPLY(*a*): SERVICES
1961-62 TO 1965-66

Year	Properties supplied	Estimated population supplied	Average daily consumption	Total consumption for year	Average daily consumption		Length of mains
					Per property	Per head of estimated population	
			mill. gals.	mill. gals.	gallons	gallons	miles
1961–62 . . .	87,792	296,502	31.7	11,555	361	107	1,512
1962–63 . . .	89,283	301,580	36.6	13,352	410	121	1,551
1963–64 . . .	91,616	309,609	36.4	13,336	398	118	1,590
1964–65 . . .	93,646	316,625	41.5	15,139	443	131	1,623
1965–66 . . .	94,779	320,451	32.7	11,970	346	102	1,673

(*a*) Newcastle, Maitland and Cessnock areas.

Metropolitan and Hunter District sewerage and drainage system (*to* 30 *June* 1966). The *metropolitan system* serving Sydney and suburbs comprises 3 major sewerage systems and 7 minor systems, consisting of 6 outfalls discharging directly into the Pacific Ocean and 4 treatment works. In addition, 7 centres outside the metropolitan area (Camden, Campbelltown, St Mary's, Port Kembla, Richmond, Warragamba township, and Wollongong) are served by local treatment works. Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30 June 1966 were 181 miles long. Sewerage rating for 1965–66 was 3.95 cents in the $ of assessed annual value, and drainage rating 0.5208 cents in the $.

The main sewerage system of the Hunter District serves the City of Newcastle and discharges into the Pacific Ocean at Burwood Beach. There are also local treatment works at Maitland, Cessnock and some of the outlying districts. Sewerage rates for 1965–66 were 4.7917 cents in the $ of assessed annual value, and drainage rates (on certain areas served) 0.5208 cents in the $.

The following table gives details of sewerage services and stormwater drains of the Metropolitan system.

METROPOLITAN SEWERAGE AND DRAINAGE(*a*) NEW SOUTH WALES: SERVICES, 1962 TO 1966

30 June—	Improved properties for which sewerage available	Estimated population served	Lengths of sewers	Length of stormwater channels
		'000	miles	miles
1962 . .	426,333	1,710	4,489	178
1963 . .	451,997	1,780	4,763	179
1964 . .	475,735	1,870	5,074	180
1965 . .	501,389	1,930	5.328	179
1966 . .	524,225	2,000	5,585	181

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

At 30 June 1966, 70,534 premises had been connnected to the Hunter District Water Board's sewerage system (Newcastle-Maitland-Cessnock areas). The total length of sewers under the Board's control was 1,023 miles, and the length of drains was 52 miles.

Metropolitan and Hunter District systems' finances. The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1965–66, and for the three services combined for the years 1961–62 to 1965–66.

METROPOLITAN AND HUNTER DISTRICT WATER SUPPLY, SEWERAGE AND DRAINAGE, NEW SOUTH WALES: FINANCES, 1961-62 TO 1965-66

($'000)

Year	Capital debt at 30 June	Revenue	Expenditure				Surplus (+) or deficit (−)
			Working expenses (*a*)	Interest and exchange	Debt redemption	Total	
METROPOLITAN(*b*)							
1965–66—							
Water . . .	285 850	33,650	15,080	13,370	5,193	33,643	+ 7
Sewerage . .	184,498	23,155	11,086	8,578	3,485	23,149	+ 6
Drainage . .	4 852	1,287	1,003	218	65	1,286	+ 1
Total, 1965–66 .	475.200	58,092	27,169	22,166	8,743	58,078	+14
1964–65 .	440.941	54,890	26,846	20,166	7.861	54,873	+17
1963–64 .	407.205	50,860	25,133	18,549	7,145	50,827	+33
1962–63 .	375,776	44,191	20,970	16,838	6,355	44,162	+29
1961–62 .	340,372	39,651	18,700	14,892	6,027	39,619	+32
HUNTER DISTRICT(*c*)							
1965–66—							
Water . . .	55,406	5,295	2 084	2,610	586	5,280	+15
Sewerage . .	18,086	2,365	1,292	797	268	2,357	+ 8
Drainage . .	782	144	93	35	7	135	+ 9
Total, 1965–66 .	74,274	7,804	3,469	3,442	861	7,772	+32
1964–65 .	69,778	6,508	3,099	2,808	701	6,607	−99
1963–64 .	65,254	6,205	2,890	2,653	648	6 191	+14
1962–63 .	59,931	5 813	2,640	2,431	722	5,794	+19
1961–62 .	55,408	5,466	2,791	2,101	529	5,421	+45

(*a*) Includes provision for renewals, long service leave, etc. (*b*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires. (*c*) Newcastle-Maitland-Cessnock areas.

Local government country water supply and sewerage systems. At 31 December 1964 country water supply services were conducted or under construction by 49 municipalities, 87 shires and 5 county councils, and country sewerage services by 51 municipalities and 40 shires. The capital indebtedness of these schemes was $80,961,000 at 31 December 1964, namely $56,447,000 for water and $24,513,000 for sewerage. Debt of the municipalities amounted to $39,255,000, shires to $30,787,000, and county councils to $10,918,000. Government advances amounting to $851,570 are included in these figures. Aggregate income and expenditure amounted to $14,188,000 and $10,827,000, respectively, in 1964.

Other country water supply and sewerage systems. The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31 December 1965 was $6,124,000. In 1965 income (excluding subsidies, State Government $165,000 and mining companies $443,000) amounted to $678,000 and expenditure (excluding debt redemption $189,000) amounted to $1,086,000. The Cobar Water Board was constituted in February 1964. At 31 December 1965 its capital indebtedness was $2,501,000. The following country water supply systems—South-West Tablelands, Junee, and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was $15,064,822 at 31 December 1965. The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

Victoria

Melbourne and Metropolitan Board of Works. The Board consists of a Chairman and fifty-one Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The principal functions of the Board are: to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; to control and manage the rivers, creeks and watercourses within the metropolitan area; and to carry out the functions of a permanent planning authority.

Metropolitan water supply. There are 6 storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourrong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 930 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,765 million gallons (65,452 million gallons). Service reservoirs number 45, with a total capacity of 366 million gallons. The water rate levied by the Board in 1965–66 was 2.5 cents in the $ on the net annual value of the properties served. The charge for water consumed in excess of the quantity which, at 20 cents per 1,000 gallons, would equal the assessed water rates on each property, was 20 cents per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1961–62 to 1965–66.

MELBOURNE WATER SUPPLY: SERVICES, 1961–62 TO 1965–66

Year	Number of houses supplied	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of aqueducts, etc., mains and reticulation	Number of meters
					Per house	Per head of estimated population		
		'000	mill. gals.	mill. gals.	gallons	gallons	miles	
1961–62	519,216	1,869	157.6	57,521	304	84.3	5,477	422,318
1962–63	547,123	1,981	151.3	55,225	277	76.4	5,622	460,866
1963–64	572,431	2,072	162.9	59,621	285	78.6	5,882	485,856
1964–65	595,727	2,157	168.2	61,409	282	78.0	6,098	511,077
1965–66	612,844	2,218	178.7	65,218	292	80.5	6,280	536,093

Metropolitan sewerage and drainage. Particulars of sewerage and drainage services for 1961–62 to 1965–66 are shown on the next page. The rate levied in 1965–66 for sewerage was 4.375 cents in the $ on the net annual value of the property served. The drainage rate was 0.625 cents in the $.

MELBOURNE SEWERAGE AND DRAINAGE: SERVICES
1961–62 TO 1965–66

Year	Number of houses for which sewers are provided	Estimated population for which sewers are provided	Average daily pumping	Total sewerage pumped for the year	Average daily pumping		Length of sewers, etc.	Length of main drains
					Per house	Per head of estimated population		
		'000	mill. gals.	mill. gals.	gallons	gallons	miles	miles
1961–62 . .	399,890	1,361	83.0	30,308	207.6	61.0	3,665	198
1962–63 . .	422,899	1,402	84.9	30,997	200.8	60.6	3,769	205
1963–64 . .	443,291	1,446	89.7	32,833	202.4	62.0	3,932	211
1964–65 . .	453,078	1,491	93.6	34,152	206.5	62.8	4,113	218
1965–66 . .	467,705	1,599	94.6	34,545	202.4	59.2	4,311	229

The metropolitan sewerage system consists of the main system (serving an area of 100,572 acres) and 6 subsidiary systems—the Sunshine system (serving an area of 2,980 acres), the Laverton system (serving an area of 290 acres), the Kew system (serving an area of 112 acres), the South-eastern system (serving an area of 4,138 acres in Cheltenham, Parkdale, Mentone, and Mordialloc), Watsonia system (serving an area of 188 acres), and the Maribyrnong system (serving an area of 182 acres). The Metropolitan Sewerage Farm, 26,809 acres in extent and situated about twenty-four miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately ninety-eight per cent of the sewerage flow of the metropolis before its discharge into Port Philip Bay. The total capital cost (less depreciation) of the farm to 30 June 1966 was $9,895,593. Revenue during 1965–66 amounted to $578,681, cost of sewerage disposal to $623,213, trading expenses to $300,500, interest to $543,739, and net cost of sewerage purification to $888,771. These financial particulars are included in the sewerage items of the summary below.

Melbourne and Metropolitan Board of Works finances. The following table provides for the year 1965–66 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1961–62 to 1965–66.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES
1961–62 TO 1965–66
($'000)

Service, etc.	Capital cost of works and buildings at 30 June(a)	Revenue	Expenditure				Surplus (+) or deficit (−)
			Working expenses	Interest and exchange	Debt redemption	Total	
Water . . .	146,540	13,701	4,472	7,680	..	12,152	+1,549
Sewerage . . .	158,915	14,337	4,167	7,804	..	11,971	+2,366
Drainage . . .	27,964	2,127	537	1,042	..	1,579	+ 548
General(b) . . .	11,791	..	2,186	..	2,274	4,460	−4,460
Total, 1965–66 .	345,210	30,165	11,362	16,526	2,274	30,162	+ 3
1964–65 .	314,972	25,307	9,308	14,856	1,960	26,124	− 817
1963–64 .	286,566	24,373	9,315	13,342	1,693	24,350	+ 23
1962–63 .	258,428	23,429	10,068	11,840	1,494	23,403	+ 26
1961–62 .	235,014	21,400	9,644	10,553	1,189	21,386	+ 14

(a) Total loan indebtedness—1965–66, $322,748,311. (b) Statutory and general expenditure not distributed over services.

State Rivers and Water Supply Commission. Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is under the jurisdiction of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission, and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection, and river improvements, are described in the chapter Water Conservation and Irrigation. This section is therefore confined to the Commission's functions in connection with urban water supply and sewerage.

Extra-metropolitan water supply. At 30 June 1966 the Commission provided a reticulated water supply from its own works to 140 cities and towns having a combined population of 206,000 persons. The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 91,000 people supplied); Bendigo, Castlemaine, etc. (57,000); and about 8,400 people in the Western District. In addition, 12,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributory system from headworks controlled by the Geelong Waterworks and Sewerage Trust. The Bendigo-Castlemaine supply also provides for the irrigation of 11,000 acres as well as urban requirements in the area. Outside these areas the Commission supplies mainly small towns in the north of the State in areas where it also supplies farms with water for irrigation or domestic and stock purposes. Capital expenditure by the Commission on urban water supply at 30 June 1966 was divided between the several systems as follows: Mornington Peninsula, $22,800,000; Bendigo-Castlemaine, $9,700,000 (includes the costs of supplying a comparatively large rural system with water for irrigation, stock and domestic purposes); Bellarine Peninsula, $2,100,000; Otway System (Western District), $2,500,000; other, $2,500,000; total, $39,600,000. This expenditure is net of redemption payments. In addition to the towns supplied by the Commission there are 639,000 people in 230 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the Government subsidises their capital expenditure. Most new works are financed from Government loan funds, but the Geelong Trust and in recent years some other local authorities borrowed money privately. In most cases the local authority controls both headworks and distribution system, but several towns—serving in all about 52,000 people—draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply 370 urban centres containing more than 845,000 people. Very few towns of any importance are now without reticulated water supply. The following table presents the financial position in respect of town water supply at 30 June 1966.

TOWN WATER SUPPLY, VICTORIA: CAPITAL LIABILITY 30 JUNE 1966

($'000)

	Water supply provided by—		
	Local authorities	State Rivers and Water Supply Commission	Total
Government advances	57,700	40,800	98,500
Less redemption	4,300	500	4,800
Government advances outstanding	**53,400**	**40,300**	**93,700**
Borne by State	12,400	14,600	27,000
Borne locally	41,000	25,700	66,700

In addition, nearly $19,000,000 has been borrowed locally, mainly by the Geelong Waterworks and Sewerage Trust.

The proportion of loan capital borne by the State is much higher in the case of Commission undertakings than for towns supplied by local authorities. This is because most Commission undertakings have been developmental in nature. Besides meeting interest on capital borne by it, the State pays the difference between three per cent and the actual rate paid on practically all the capital carried locally. The total annual subsidy on country town water supply is currently about $2,700,000.

Extra-metropolitan sewerage systems. With the exception of the town of Eildon, whose sewerage system is controlled directly by the State Rivers and Water Supply Commission, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board which have special Acts dealing with their activities, all sewerage authorities operate under the Sewerage Districts Act. At 30 June 1966 there were 59 cities and towns with sewerage systems in operation. These contained about 523,000 persons, nearly half the total number of residents outside the metropolitan area.

Expenditure on sewerage in Victorian country towns at 30 June 1966 was approximately $65,000,000, of which some $51,000,000 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about $1,350,000, provided mainly in the form of subsidies on interest rates paid along the same lines as for town water supply. Comparatively little capital is borne directly by the State.

Geelong Waterworks and Sewerage Trust. The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the *Geelong Waterworks and Sewerage Act* 1909. It was further reconstituted in September 1950 to include a government nominee (chairman), and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners. The amount of loan money which may be raised is limited to $24,000,000 for water supply undertakings and $10,000,000 for sewerage undertakings. The population supplied is estimated by the Trust at 109,482 persons. This and other general information relates to 30 June 1966.

The *Geelong water supply scheme* comprises two systems for gathering and storing water, the water in both systems being brought over fifty miles to Geelong. There are 7 storage reservoirs and 11 service basins whose total storage capacity is 13,292 million gallons. The length of water mains and reticulation is 558 9 miles. The total expenditure on water supply to 30 June 1966 was $16,131,881. General fund expenditure for 1965–66 comprised $447,720 for working expenses and $1,029,734 for interest, redemption and reserves, while revenue amounted to $1,478,014. The sinking fund appropriations at June 1966 amounted to $947,438. The replacement and contingencies reserve amounted to $1,036,057. There is a water rate of 5.83 cents in the $ (with minima of $1 for vacant land and $2 for tenements) on the net annual value of rateable properties.

The *Geelong sewerage scheme* consists of a main outfall sewer to the ocean and 314.6 miles of main and reticulation sewers. The sewerage area is 11,851 acres, and the number of buildings connected within the sewered areas is 26,843. The total expenditure on sewerage works to 30 June 1966 was $7,443,704. The revenue in 1965–66 amounted to $743,628, and the general fund expenditure comprised $246,160 on working expenses and $497,049 on interest, redemption and reserves. Sinking fund appropriations at 30 June 1966 were $538,019. Replacement and contingencies reserve amounted to $1,082,511. A general rate of 4.58 cents in the $ is levied on the net annual value of rateable properties.

Under the *Barwon River Improvement Act* 1939 a portion of the Barwon River is vested in the Geelong Waterworks and Sewerage Trust. General maintenance and improvements of the surrounding area is financed by the levying of an improvement rate of 0 21 cents in the $ on the net annual value of all lands within the drainage area. The revenue for 1965–66 amounted to $38,533.

The Ballarat Water Commissioners and the Ballarat Sewerage Authority. The body known as the Ballarat Water Commissioners was constituted on 1 July 1880 and the Ballarat Sewerage Authority on 30 November 1920. The members of the Water Commissioners constitute the Sewerage Authority. General and financial information given herein relates to the year ended 31 December 1966.

The *Ballarat water supply district* comprises an area of about 62 square miles, containing a population of about 62,000. The total storage capacity of the 7 reservoirs is 5,435 million gallons and the catchment area is 24,182 acres. The capital cost of construction of the waterworks was $5,988,651 to 31 December 1966. The liabilities amounted to $3,773,199 at 31 December 1966, including loans due to the Government totalling $3,519,244. The revenue for the year 1966 was $430,723. Working expenses during 1966 amounted to $245,004 and interest and other charges to $185,415. A water rate of 3.2 cents in the $ on the net annual valuation is levied, with a minimum charge of $4 per annum on any rateable property; water by measure, 14 cents per 1,000 gallons.

The *Ballarat sewerage district* comprises the City of Ballaarat and parts of the Shires of Ballarat, Bungaree and Grenville and the Borough of Sebastopol. There are more than 192 miles of sewers. The capital cost of sewerage construction works to 31 December 1966 was $4,397,354. Two hundred and sixty-seven sewered areas had been declared as at 31 December 1966. Assessments in the sewerage district numbered 19,740, while those in sewered areas numbered 16,851. There were 15,403 buildings connected. The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31 December 1966 amounted to $3,813,935; redemption payments at that date totalled $849,392. House connections financed by the Authority numbered 4,330. Revenue during 1966 amounted to $452,048, and expenditure, which included $264,284 for interest and redemption, was $440,256. A sewerage rate of 4.2 cents in the $ on the net annual valuation is levied, with a minimum charge of $8 on any rateable property. The charge for trade wastes is 10 cents per 1,000 gallons.

Latrobe Valley Water and Sewerage Board. The Latrobe Valley Water and Sewerage Board was constituted on 1 July 1954. The Board consists of seven members, namely: two Government nominees (one of whom is Manager and also Board Chairman), three members elected by water supply, sewerage and river improvement authorities within the Latrobe Valley, and one representative each of the State Electricity Commission of Victoria and the Gas and Fuel Corporation of Victoria.

The Board is empowered to construct *water supply works within the Latrobe Valley*, but at present its main construction activities are confined to the central industrialised areas and the new township of Churchill. The total capital cost of construction of the waterworks was $10,888,179 to 30 June 1966. Liabilities amounted to $11,615,930, including loans due to the Government totalling $11,180,928. Revenue for the year was $748,390. Expenditure during 1965–66 amounted to $658,344, including interest amounting to $337,120. The Board does not strike a rate, but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30 June 1966 was 10,400 million gallons.

The *Latrobe Valley sewerage system* consists of a main outfall sewer, about 52 miles in length, to convey wastes to an area where they are disposed of on land for agricultural purposes. Wastes conveyed consist mainly of industrial wastes, such as paper wastes and gasification wastes, together with small quantities of domestic sewage. The capital cost of the sewerage construction works to 30 June 1966 was $6,000,592. Liabilities amounted to $6,745,824, including loans due to the Government totalling $5,821,955. Revenue in 1965–66 was $277,352 and expenditure totalled $309,200, including $116,065 interest payments. No sewerage rate is levied, but a charge is made by measure for wastes both from industries and public authorities.

Other sewerage authorities. At 30 June 1966, 79 other sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts, and systems were in operation in 55 districts.

Queensland

Brisbane City Council (to 30 June 1966). This organisation conducts the water supply and sewerage systems of the City of Brisbane, and also supplies, in bulk, the whole of the water used by the City of Ipswich and a portion of that used by the City of Redcliffe and Albert Shire Council. Redcliffe supplements its supply from that of the Pine Rivers Shire Council, while Albert also draws on its own reservoirs.

Storage facilities for *Brisbane water supply* comprise the following (available capacities are shown in parentheses): Somerset Reservoir, 200,000 million gallons (67,000 million gallons); Lake Manchester, 5,800 million gallons (5,700 million gallons); Brisbane River, Mt Crosby Weir, 540 million gallons (480 million gallons); Pure Water Reservoir, Holt's Hill, 11 million gallons (11 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are 18 service reservoirs with a capacity of approximately 43 million gallons. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 67,000 million gallons to be for water storage and 133,000 million gallons for flood mitigation. Water rating for the year ended 30 June 1966, was 1.25 cents in the $ on the unimproved valuation of all rateable land, with a minimum charge of $24 for the year for each assessment. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich, Redcliffe, and portion of Albert Shire) for the years 1961–62 to 1965–66.

BRISBANE WATER SUPPLY(*a*): SERVICES, 1961-62 TO 1965-66

Year	Services connected	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of trunk and reticulation mains
					Per service	Per head of estimated population	
			mill. gals.	mill. gals.	gallons	gallons	miles
1961–62	178,279	649,970	45.3	16,538	254	69.7	2,284
1962–63	182,804	665,479	48.3	17,644	264	72.6	2,378
1963–64	188,032	685,223	51.2	18,696	272	74.8	2,410
1964–65	193,471	703,258	61.4	22,409	317	87.3	2,564
1965–66	197,707	722,970	67.6	24,668	342	93.5	2,666

(*a*) Includes Ipswich, Redcliffe and portion of Albert Shire.

The sewage treatment works of the *Brisbane sewerage scheme* is situated at Luggage Point at the entrance to the Brisbane River. Sewerage rating for the year ended 30 June 1966 was 1.1 cents in the $ on the unimproved valuation of each portion of land, with a minimum charge of $24 for the year. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1961–62 to 1965–66.

BRISBANE SEWERAGE: SERVICES, 1961-62 TO 1965-66

Year	Premises connected	Estimated population served	Total sewage pumped for the year	Length of main, branch, reticulation, etc. sewers
			mill. gals.	miles
1961–62 . .	67,407	249,406	5,933	906
1962–63 . .	71,754	265,490	6,851	944
1963–64 . .	75,964	281,067	7,211	1,042
1964–65 . .	84,390	312,243	7,190	1,222
1965–66 . .	90,940	336,478	8,821	1,341

Brisbane City Council water supply and sewerage systems—finances. The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1961–62 to 1965–66.

BRISBANE WATER SUPPLY AND SEWERAGE: FINANCES, 1961-62 TO 1965-66
($'000)

Service and year	Gross capital cost to 30 June	Revenue	Expenditure			Surplus (+) or deficit(—)
			Working expenses	Interest, redemption, etc. charges	Total (*a*)	
Water supply—						
1961–62 . .	39,990	4,963	2,260	1,950	4,763	+ 201
1962–63 . .	43,059	5,650	2,334	2,168	5,218	+ 432
1963–64 . .	46,175	5,989	2,492	2,330	5,318	+ 670
1964–65 . .	49,768	7,030	2,827	2,436	5,889	+1,141
1965–66 . .	54,635	8,365	3,069	2,503	8,471	— 106
Sewerage—						
1961–62 . .	35,907	2,072	592	1,130	2,091	— 19
1962–63 . .	39,854	2,525	592	1,304	2,336	+ 189
1963–64 . .	45,439	2,763	651	1,550	2,571	+ 192
1964–65 . .	50,184	3,664	803	1,705	3,434	+ 230
1965–66 . .	55,858	4,829	882	1,829	4,172	+ 657

(*a*) Total, including other expenditure.

Country towns. In addition to the City of Brisbane, there were at 30 June 1965, 203 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils. At 30 June 1965 there were 45 cities or towns in addition to Brisbane with sewerage systems. The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to $6,819,052 in 1964–65. Expenditure amounted to $7,017,580, including $2,984,999 for debt charges. In addition, expenditure from loans and loan subsidy amounted to $5,719,906. Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

South Australia

The water supply and sewerage systems in this State were constructed mainly, and are maintained, by the Engineering and Water Supply Department, under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula, and other country water districts systems, the Morgan–Whyalla water supply system, the metropolitan and country sewerage systems, the

Metropolitan Flood Waters Scheme, and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are operated by the Department of Lands in conjunction with its irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities. The following tables show particulars of metropolitan and country waterworks combined.

WATERWORKS, SOUTH AUSTRALIA: SERVICES, 1961-62 TO 1965-66

Year	Assessments(*a*)		Area of districts supplied (*a*)	Capacity of reservoirs, tanks, etc.	Length of mains	Number of meters
	Number	Annual value				
		$'000	'000 acres	mill. gals.	miles	
1961–62 . .	338,636	85,404	13,154	45,106	9,634	247,972
1962–63 . .	357,342	92,737	13,287	45,062	9,996	262,571
1963–64 . .	365,579	104,159	13,373	45,173	10,469	278,183
1964–65 . .	376,425	109,651	13,524	45,179	10,748	292,212
1965–66 . .	390,045	127,599	13,849	45,189	11,091	303,288

(*a*) Excludes Morgan–Whyalla Water Supply—water sold by measure.

WATERWORKS, SOUTH AUSTRALIA: FINANCES, 1961-62 TO 1965-66
($'000)

Year	Invested capital at 30 June (*a*)	Revenue	Expenditure			Deficit
			Working expenses (*b*)	Interest	Total	
1961–62 . .	146,231	9,065	8,390	5,388	13,778	4,713
1962–63 . .	161,817	9,903	7,975	6,395	14,370	4,467
1963–64 . .	172,583	11,103	7,752	6,960	14,711	3,608
1964–65 . .	189,205	11,955	8,475	7,694	16,169	4,214
1965–66 . .	201,828	13,393	9,845	8,376	18,221	4,828

(*a*) After deduction of depreciation. (*b*) Includes debt redemption.

Adelaide waterworks. At 30 June 1966 the Adelaide waterworks supplied a district of 216,926 acres. The capacity of reservoirs and storage tanks was 24,230 million gallons and there were 3,108 miles of mains. Water is also drawn from the 11,300 million gallon reservoir at South Para in the Barossa Water District. The Mannum–Adelaide pipeline conveys water from the River Murray to Adelaide at a rate of up to 66 million gallons a day. Water is delivered to a terminal storage near Adelaide and hence to the metropolitan distribution system or alternatively it can be delivered into metropolitan reservoirs on the River Torrens or to reservoirs on the River Onkaparinga by further pumping. The pipeline supplements the Warren system and other country areas.

ADELAIDE WATERWORKS: FINANCES, 1961-62 TO 1965-66
($'000)

Year	Invested capital at 30 June (*a*)	Revenue	Expenditure			Surplus (+) or deficit (—)
			Working expenses (*b*)	Interest	Total	
1961–62 . .	77,254	6,302	4,754	2,738	7,492	— 1,190
1962–63 . .	83,461	6,874	4,143	3,380	7,522	— 649
1963–64 . .	86,692	7,796	3,861	3,610	7,471	+ 326
1964–65 . .	92,872	8,417	4,222	3,907	8,129	+ 289
1965–66 . .	98,056	9,521	5,292	4,248	9,540	— 19

(*a*) After deduction of depreciation. (*b*) Includes debt redemption.

Adelaide metropolitan sewerage system. The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide, Christies Beach, and Salisbury–Elizabeth areas of 179 square miles in all, includes treatment works at Glenelg, Port Adelaide, Bolivar, and Christies Beach. Financial and other particulars for 1961–62 to 1965–66 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY
1961–62 TO 1965–66

Year	Length of sewers	Number of connections	Invested capital at 30 June (*a*)	Revenue	Expenditure			Surplus
					Working expenses (*b*)	Interest	Total	
	miles		$'000	$'000	$'000	$'000	$'000	$'000
1961–62 . .	1,659	179,918	29,090	4,422	1,827	1,049	2,876	1,546
1962–63 . .	1,714	186,143	33,510	4,689	2,002	1,151	3.153	1,536
1963–64 . .	1,774	194,889	38,996	5,239	2,201	1,265	3,466	1,774
1964–65 . .	1,854	204,128	47,127	5,513	2,363	1,380	3,743	1,769
1965–66 . .	1,952	213,375	56,235	6,386	2,614	1,561	4,175	2,211

(*a*) After deduction of depreciation. (*b*) Includes debt redemption.

Country sewerage schemes. Sewerage schemes are operating at Port Lincoln, Naracoorte, Mount Gambier, Lobethal, Gumeracha, Nangwarry, Mount Burr, Myponga, and Angaston. At Port Lincoln and Mount Gambier the sewers discharge to ocean outfalls, and treatment works are used on the other systems. There are 152 miles of sewers and 5,046 connections in the country systems. A sewerage scheme for Whyalla is under construction.

Country water supply. Water districts systems at 30 June 1966 comprised an area of 13,632,249 acres. Supply came from reservoirs having a total capacity of 20,959 million gallons, from the River Murray, and from underground sources. Apart from local supplies, water from the River Murray comes from branches of the Mannum-Adelaide main and from the Morgan-Whyalla main. The principal areas of underground supplies are in the south-east of the State, where water from the Murray Basin can be had at moderate depths or from lakes, and from sand beds on Eyre Peninsula. In the year 1965–66 supplies made to Mount Gambier, Naracoorte and other towns amounted to 1,145 million gallons, and the Uley-Wanilla, Lincoln and Polda Basins contributed 658 million gallons to the Tod River Water District.

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES
1961–62 TO 1965–66
($'000)

Year	Invested capital at 30 June (*a*)	Revenue	Expenditure			Deficit
			Working expenses (*b*)	Interest	Total	
1961–62 . . .	68,976	2,763	3,636	2.651	6,286	3,523
1962–63 . . .	78,356	3,030	3,833	3,015	6,848	3,818
1963–64 . . .	85,892	3,307	3,891	3,350	7,241	3,934
1964–65 . . .	96,333	3,538	4,253	3,787	8,040	4,502
1965–66 . . .	103,772	3,872	4,553	4,128	8,681	4,809

(*a*) After deduction of depreciation. (*b*) Includes debt redemption.

Morgan-Whyalla water supply scheme. This scheme, which has 223 miles of main, was officially opened on 31 March 1944, the capital invested to 30 June 1966 being $28,594,600. Particulars of the scheme, where applicable, are included in the tables of the combined waterworks, page 863.

Apart from supplying Whyalla, the main has been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla, duplication of the main is under way. During 1965–66 water used from the scheme amounted to 4,486 million gallons.

Western Australia

The principal water supply systems of Western Australia are under the control of two State authorities, the Metropolitan Water Supply, Sewerage, and Drainage Board and the Department of Public Works and Water Supply. The Metropolitan Water Supply, Sewerage, and Drainage Board is constituted under the provisions of the *Metropolitan Water Supply, Sewerage, and Drainage Act, 1909–1966* and consists of seven members appointed by the Governor. The area which constitutes the territory administered by the Board encompasses approximately 1,270 square miles and extends from Perth southward to Rockingham and Serpentine, northward to Sorrento, and eastward to Greenmount and Kalamunda. The Department of Public Works and Water Supply controls the Goldfields and Agricultural Water Supply and the Great Southern Towns Water Supply as well as ninety-one local water supplies (*see also* the chapter Water Conservation and Irrigation). Five independent town schemes are controlled by local Water Boards in country areas, and individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes, and agricultural areas, mainly from dams, tanks, wells, and bores.

Metropolitan water supply, sewerage and drainage. The sources of the metropolitan water supply are Serpentine Reservoir and Serpentine Pipehead Reservoir, Canning Reservoir, Wungong Brook Diversion Weir. Churchman Brook Reservoir, and Victoria Reservoir. The largest of these sources are the Serpentine Reservoir and the Canning Reservoir. Serpentine Reservoir is constructed of rolled earth fill, and the embankment rises 171 feet above the stream bed, the length at the crest being 1,390 feet. Its capacity is 39,000 million gallons, and the area of the catchment is 245 square miles. Canning Reservoir, with an estimated catchment area of 302 square miles, has a storage capacity of 20,550 million gallons retained by a concrete wall 218 feet high and 1,534 feet long at the crest. Water from storages on the Darling Range is conveyed to service reservoirs to serve the City of Perth and the metropolitan area. A limited quantity of water is drawn from Mundaring Weir to serve the Kalamunda area and sections of Greenmount, and to meet the peak demands of summer consumption supplies are supplemented from artesian bores, which can provide a daily maximum of 15 million gallons. The amount of bore water used is rarely more than 10 per cent of the metropolitan consumption and is usually considerably less.

The following table shows particulars of the *metropolitan water supply services* for 1961–62 to 1965–66.

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA SERVICES, 1961-62 TO 1965-66

Year	Number of services (*a*)	Average daily consumption	Total consumption for year	Average daily consumption per service (*b*)	Length of mains	Number of meters
		mill. gals	mill. gals	gallons	miles	
1961–62	137,960	50.6	18,492	373	2,179	116,610
1962–63	142,246	47.1	17,214	336	2,278	123,364
1963–64	149,033	53.2	19,454	362	2,411	130,480
1964–65	154,051	55.7	20,339	367	2,526	135,471
1965–66	158,675	59.5	21,707	375	2,654	139,435

(*a*) Figures relate to 30 June. (*b*) Calculated from averages for the year.

Water rating for 1965–66 was 5 cents in the $ on annual valuation on land used for residential purposes and 7.5 cents in the $ on annual valuation on land not so used.

Some particulars of the *metropolitan sewerage and main drainage services* for 1961–62 to 1965–66 are shown in the following table.

METROPOLITAN SEWERAGE AND MAIN DRAINAGE WESTERN AUSTRALIA: SERVICES 1961-62 TO 1965-66

Year	Services	Length of sewers	Length of main drains
		miles	miles
1961–62	67,378	736	77
1962–63	68,223	751	81
1963–64	68,958	769	94
1964–65	69,553	777	100
1965–66	70,283	816	102

Sewerage rating for 1965–66 was 8.75 cents in the $ on annual valuation, while metropolitan main drainage rating was 1.66 cents in the $.

Metropolitan Water Supply, Sewerage and Drainage Board—finances. The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Board.

METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE WESTERN AUSTRALIA: FINANCES, 1961-62 TO 1965-66

($'000)

Service and year	Capital cost to 30 June	Revenue	Expenditure			Surplus (+) or deficit (−)
			Working expenses	Interest and debt redemption	Total	
Water supply—						
1961–62	44,312	3,607	1,545	1,976	3,521	+ 85
1962–63	48,489	3,705	1,505	2,175	3,680	+ 25
1963–64	51,482	4,175	1,583	2,502	4,084	+ 91
1964–65	54,334	4,370	1,653	2,641	4,294	+ 76
1965–66	58,336	4,861	1,815	3,018	4,833	+ 28
Sewerage—						
1961–62	16,603	1,877	1,050	893	1,944	− 67
1962–63	18,119	2,261	1,102	1,019	2,120	+ 141
1963–64	19,851	2,323	1,214	1,015	2,229	+ 93
1964–65	22,050	2,426	1,272	1,053	2,325	+ 101
1965–66	24,243	2,823	1,336	1,176	2,512	+ 310
Main drainage—						
1961–62	3,950	240	126	181	307	− 66
1962–63	4,383	296	151	200	351	− 54
1963–64	4,998	310	153	217	370	− 60
1964–65	5,641	342	191	238	429	− 87
1965–66	6,344	418	245	275	520	− 102

Country water supplies. Information concerning country water supplies is included in the chapter Water Conservation and Irrigation.

Tasmania

Waterworks. At the end of 1965–66 there were 96 municipally operated waterworks in Tasmania. The capacity of the reservoirs was approximately 2,500 million gallons, the estimated population served was 306,000, and the number of properties served was approximately 98,000.

The North Esk Regional Water Supply Scheme is operated by the Rivers and Water Supply Commission as a State concern, supplying bulk water to the municipalities of St Leonards, George Town, Lilydale, and portion of Westbury. This scheme also supplies water to industries situated near the Tamar River. Also vested in the Commission is the West Tamar Water Supply Scheme which serves the Municipality of Beaconsfield, and is operated by the Beaconsfield Council as the agent of the Commission. The overall control of water supply in the greater Hobart area, comprising the municipalities of Hobart, Clarence, Glenorchy, and Kingborough, is vested in the Metropolitan Water Board, but the municipalities retain primary responsibility for reticulation. The Board has constructed a large bulk supply at Bryn Estyn, near New Norfolk, which supplies bulk water from the Derwent River to the metropolitan area and has a pipeline capacity of 20 million gallons a day. In addition, the Board also controls the Southern Regional Water Supply Scheme, which supplies water to Hobart's eastern shore. In addition to supplying the metropolitan area, the Board extended its service to supply the towns of Cambridge, Midway Point, Sorell, and Seven Mile Beach, and it is planned to take it to the towns of Rokeby, Lauderdale, Margate, Snug, and Howden in due course. The Board has at present under construction a storage at Risdon Brook with a capacity of 800 million gallons and estimated to cost $2½ million. This work is expected to be completed during 1967–68.

Sewerage. At the end of 1965–66 there were 22 municipal sewerage schemes in operation in Tasmania. They served an estimated population of 204,000 and the number of tenements served was approximately 55,300.

Northern Territory

Information relating to water supply in the Northern Territory may be found in the chapter **Water Conservation and Irrigation.**

Australian Capital Territory

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Commonwealth Department of Works. The sources of the water supply are: Cotter Dam (capacity 967 million gallons) and Bendora Dam (2,360 million gallons). Eight pumps are capable of pumping approximately 31.6 million gallons daily to 12 major reservoirs. The total population served in the Australian Capital Territory, which during 1965–66 consumed 4,804 million gallons of water, was 95,290 (at 30 June 1966). In addition, the Canberra water supply system supplied 356 million gallons of water to Queanbeyan, New South Wales. The total number of water meters at 30 June 1966 was 23,043 and the total length of water lines was 425 miles. The sewerage system for Canberra and suburbs consists of a treatment works, 345 miles of sewerage reticulation, and 6½ miles of rising mains (at 30 June 1966). There were also 361 miles of stormwater sewers.

Harbour boards and trusts

The number and net tonnage of vessels which entered the major ports in each State during the years 1964–65 and 1965–66 are shown in Chapter 13, Transport, Communication, etc. (*see* page 432). Particulars of overseas and interstate cargo discharged and shipped are shown on page 433 of the same chapter.

New South Wales

Maritime Services Board of New South Wales. The Maritime Services Board of New South Wales is a corporate body of seven commissioners comprising three full-time members and four part-time members representing shipping and other maritime interests. The Board was constituted on 1 February 1936, under the Maritime Services Act, 1935, to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation. The Board exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft, and the examination and issue of certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys, and other port facilities, imposes and collects rates and charges on goods and vessels, and is vested with the general control and management of the navigable waters and ports within the State. At the ports of Sydney, Newcastle and Botany Bay the Board is also responsible for the provision of adequate wharfage and channels and carries out all construction, maintenance and dredging work. All revenue earned by the Board at the ports of Sydney, Newcastle and Botany Bay, with the exception of that earned from pilotage and navigational services, is credited to the Maritime Services Board Fund, and all revenue expenditure incurred at the three ports is drawn from that Fund. The following table shows particulars of the finances of the Board in respect of the ports of Sydney, Newcastle and Botany Bay.

MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY, NEWCASTLE AND BOTANY BAY, 1961-62 TO 1965-66

($'000)

Year	Revenue				Expenditure(*a*)			Surplus
	Wharfage and transhipment rates	Tonnage rates and berthing charges	Other charges	Total	Administration and maintenance	Interest, debt redemption, exchange, etc.	Total	
1961–62 .	9,308	1,399	2,585	13,293	7,513	5,714	13,228	65
1962–63 .	9,693	1,581	2,438	13,712	7,543	6,056	13.599	113
1963–64 .	10,838	1,755	2,933	15,526	7,864	7,567	15.431	95
1964–65 .	11,594	1,858	3,565	17,017	9,109	7,835	16.945	72
1965–66 .	10,711	1,832	3,980	16,523	9,512	6,916	16,428	95

(*a*) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account ($2 750,000 in 1961–62, $3,091,000 in 1962–63, $4,778,000 in 1963–64, $5,080,000 in 1964–65, and $3,060,000 in 1965–66).

Port of Sydney. The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as 'The Heads', and the Harbour proper, a distance of four miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 42 feet deep (low water ordinary spring tide) and the Eastern Channel 42 feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length, and the total area of the port is 13,600 acres, or 21 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated close to the business centre of the city, about four or five miles from the Heads. At 30 June 1966 there were 5 dolphin berths 3,350 feet long, and 88 effective commercial cargo berths with a total length of 45,565 feet, controlled by the Board. Accommodation for harbour craft amounts to 2,245 feet, while the length of other berths, including oil and private wharves, totals 23,961 feet. Depth of water at wharves is up to 36 feet. Special facilities for the storage and handling of products such as wheat, wool, coal, etc. are provided, and modern plant has been installed for replenishing ships' bunkers with oil or coal. Docking facilities are available for large vessels and the Captain Cook Graving Dock ranks among the largest graving docks in the world, being 1,139 feet by 147 feet 7½ inches with a depth of 45 feet 2 inches over the sill at high water. There are also several smaller dry docks and floating docks in the port.

Port of Newcastle. As from 1 May 1961 the Maritime Services Board of New South Wales became the single authority for the port of Newcastle. An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. It is primarily a coal-loading port, and the proximity to the coal fields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,200 feet, and the navigable channel, with a depth of 30 feet at low water, is 500 feet wide. Work is now in hand to increase the depth to 36 feet. Wharfage accommodation amounts to approximately 16,000 feet, including about 3,000 feet of privately owned wharfage. There are also two dolphin berths available for tie-up purposes. A floating dock of 15,000 tons capacity is available at the port.

Botany Bay. The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell, near Sydney, and two berths are available as well as tanker mooring buoys. The entrance to the Bay is approximately one and a quarter miles wide, with a minimum depth of about 37 feet in the dredged swinging basin.

Port Kembla. As from 3 May 1948 the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works. This Department, however, continues to be the constructing authority in respect of works, dredging and maintenance. An Advisory Committee consisting of nine members, appointed by the Governor, has been formed to assist the Board in the operation of the port. It has an area of approximately 340 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation totalling

8,000 feet has been provided for large ocean-going vessels. No cargo sheds are available, as the nature of trade at the port does not call for the provision of sheltered storage accommodation at the berths. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong. The developmental programme for Port Kembla includes the construction of an inner harbour to provide wharfage for the steelworks in addition to modern general cargo berths; a coal loading plant capable of loading at the rate of 2,000 tons an hour is now available. Present accommodation is 1,900 feet of wharfage, with 36 feet (an water ordinary spring tide) of water alongside. Width in the entrance to the inner harbour basin is 400 feet.

Other ports. In addition to the ports of Sydney, Newcastle, Port Kembla, and Botany Bay, the Board controls 29 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

Port charges. The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1 February 1936 the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to $22,592,000 in 1965–66. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay (*see* table on page 868) and State navigation service collections, $6,069,000 in 1965–66.

Victoria

Melbourne Harbor Trust. Information regarding the origin and constitution of this Trust, which controls the port of Melbourne, appears in Official Year Book No. 12, pages 970–2. The port of Melbourne comes under the control of the Melbourne Harbor Trust Commissioners, an independent autonomous statutory organisation, with a full-time chairman and five part-time commissioners with specialised knowledge of the requirements of exporters, primary producers, shipowners, importers, and of all aspects of port labour. The area of water and land under the control of the Trust is ten and a half square miles, with sheds available for cargo in transit totalling 22,928 feet in length and covering an area of about 43 acres. Three of the largest transit sheds on the Australian coast are now in operation at Appleton Dock. The sheds are 600 feet long by 150 feet wide, each with a cargo stacking area of 81,000 square feet. The berths are used for the general cargo trade and have both rail and crane facilities and modern amenities for port workers. The total length of wharves, piers and jetties in the port is 61,550 feet, covering an area of about 59 acres with 56,940 feet of effective berthing space.

During 1965 major reconstruction and modernisation of several cargo berths in the Port including 1–4 Victoria Dock and 19 South Wharf was concluded. Construction of a new shipping control centre seventy-four feet above ground level, with radar and visual observation of the entire port area, was continued. The specifications and design for the construction of a 250-ton dual purpose floating crane were finalised and tenders called for the building of the crane. A modernisation programme costing $720,000 was undertaken on the main oversea passenger terminal at Station Pier. The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 39 feet. The following table shows particulars of the financial operations of the Trust.

MELBOURNE HARBOR TRUST: FINANCES, 1962 TO 1966
($'000)

Year	Gross loan indebtedness at 31 December	Revenue		Expenditure				Surplus (+) or deficit (−)
		Wharfage and tonnage rates	Total	Operation, administration and maintenance	Interest, debt redemption, exchange, etc.	General reserve, depreciation, renewals and insurance account	Total	
1962 . .	29,750	4,883	7,958	5,170	1,793	969	7,932	+ 26
1963 . .	29,835	5,459	8,969	5,391	1,918	1,546	8,855	+114
1964 . .	29,773	7,145	11,312	6,687	2,632	1,812	11,131	+181
1965 . .	30,473	7,058	11,434	6,451	2,393	2,382	11,226	+208
1966 . .	32,229	6,393	10,695	6,235	1,712	2,583	10,530	+165

Geelong Harbor Trust. The Geelong Harbor Trust, constituted in 1905, is under the control of three Commissioners appointed from time to time by the Governor-in-Council. At the end of 1966 there were 18 effective berths in the port, plus 2 berths at the Commonwealth Explosives Pier, Point Wilson, owned and operated by the Commonwealth. Point Henry Pier, a 4,000 feet alumina discharging structure, was officially opened on 13 April 1966, and Corio Quay South No. 1, a new general cargo and meat loading berth, came into operation in February 1967. The construction of a modern dry bulk berth with an initial discharge rate of 1,000 tons an hour will commence in 1967, but the 4 seven and a half ton cranes to operate on this berth have in the meantime commenced to operate on the adjacent Kings Wharf. Eight berths have a depth of 36 feet at low water, while all other berths (except Commonwealth Explosives Pier, Point Wilson, and Point Henry Pier, 30 feet) have a depth of 32 feet at low water. Revenue for the year 1965 was $3,224,548 and expenditure from revenue totalled $1,978,528. At 31 December 1965 the value of the Trust's fixed assets was $22,936,336 and loans outstanding amounted to $7,683,070.

Portland Harbor Trust. Construction of an all-weather deep-sea port of three berths with a low water depth of 36 feet was completed to operational standards in 1960. A new oil tanker berth was brought into commission during 1963, from which petroleum products are pumped to bulk terminals at North Portland, and the completion of a bulk grain terminal now provides in-transit storage for one and a quarter million bushels of grain awaiting overseas shipment. Cargo vessels loading or discharging cargo during 1965–66 financial year showed an increase of 10 vessels over the previous year's figure. The current construction programme of a new bulk shipping berth will comprise the first stage of development of No. 2 Quay. Timed for completion in mid-1968, No. 6 Berth has been designed primarily for the discharge of phosphate rock and other chemicals. Operating revenue for the year ended 30 June 1966 was $322,776 and revenue expenditure was $267,116. The value of the Trust's fixed assets, less depreciation, was $16,697,089 at 30 June 1966, and loans and advances outstanding amounted to $17,109,875.

Queensland

The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

Brisbane. Brisbane, in its dredged and improved river, accommodates comfortably the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly because of the increasing size of vessels, are still within easy access of the city. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1960–61 to 1964–65 are shown below.

BRISBANE HARBOUR: FINANCES, 1960-61 TO 1964-65

($'000)

Year	Loan indebtedness at 30 June	Receipts		Payments	
		Harbour dues	Total	Working expenses(*a*)	Total
1960–61	5,627	1,525	2,327	1,357	1,801
1961–62	5,431	1,485	2,168	1,256	1,698
1962–63	5,296	1,640	2,514	1,774	2,146
1963–64	5,032	1,859	2,500	3,346	3,837
1964–65	4,912	2,125	2,796	2,305	2,646

(*a*) Excludes interest and redemption included in total.

In addition to Brisbane harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, and 10 smaller harbours not administered by harbour boards.

Harbour Boards. Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton, and Townsville. Finances for each port for the year ended 30 June 1965 are shown below, together with a summary for the years ended 30 June 1961 to 1965.

HARBOUR BOARDS, QUEENSLAND: FINANCES, 1960-61 TO 1964-65
($'000)

Harbour board	Loan indebtedness at 30 June	Revenue		Expenditure (excluding loan)		Surplus(+) or deficit(−)
		Wharfage and harbour dues	Total	Working expenses	Total (including interest and redemption) (a)	
Bowen	532	20	25	21	29	− 4
Bundaberg	6,328	475	1,789	197	1,798	− 9
Cairns	7,062	498	1,087	316	1,024	+ 63
Gladstone	4,470	216	706	67	625	+ 82
Mackay	4,162	453	1,404	317	1,288	+116
Rockhampton	2,599	81	105	51	126	− 21
Townsville	8,671	670	1,221	429	1,281	− 60
Total, 1964–65	**33,824**	**2,412**	**6,337**	**1,398**	**6,169**	**+168**
1963–64	28,369	2,329	5,419	1,362	5,402	+ 17
1962–63	22,619	2,179	4,119	1,203	3,731	+388
1961–62	19,682	1,883	3,571	997	3,248	+322
1960–61	18,791	1,724	3,366	1,095	3,251	+116

(a) Includes expenditure on capital works from accumulated revenue.

South Australia

The South Australian Harbors Board. All South Australian harbours are controlled by the South Australian Harbors Board, which consists of three commissioners appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the 5 deep-sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, and Thevenard. At a few ports the wharves or jetties are privately controlled, the principal of these being at Whyalla, Ardrossan and Rapid Bay, all of which are controlled by the Broken Hill Pty. Co. Ltd. Port Augusta is controlled by the Commonwealth Railways on behalf of the Commonwealth Government. Maximum depths of water (low water) at the wharves of the main ports range from 27 feet at Port Pirie to 35 feet at Port Adelaide (Outer Harbor). The following table shows the finances of the Board for 1961–62 to 1965–66.

THE SOUTH AUSTRALIAN HARBORS BOARD: FINANCES 1961-62 TO 1965-66
($'000)

Year	Capital at 30 June (a)	Revenue	Expenditure from revenue			Surplus
			Working expenses	Interest	Total	
1961–62	37,112	5,153	3,353	1,402	4,755	399
1962–63	38,968	5,098	3,344	1,531	4,876	222
1963–64	40,996	6,114	3,591	1,581	5,172	942
1964–65	42,474	6,201	3,908	1,679	5,587	614
1965–66	44,316	6,194	3,941	1,734	5,675	519

(a) State Treasurer's funds and reserve employed.

Western Australia

Fremantle Port Authority. The Port of Fremantle is operated and controlled by the Fremantle Port Authority, a body corporate administered by a Board of five commissioners appointed triennially by the Governor. The port covers an extensive water area of some 180 square miles and comprises an inner and an outer harbour. The inner harbour includes 18 deep-water land-backed berths, providing 703,850 square feet of covered storage space and 11,148 feet of wharf berth accommodation. All inner harbour berths are dredged to a low water depth of 36 feet. The outer harbour includes 3 main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep-water jetties, including the oil refinery jetty in Cockburn Sound, are available in the outer harbour. Ocean-going deep draft ships enter the Sound by means of a channel dredged through Success and Parmelia Banks to a low water depth of 38 feet and a bottom width of 500 feet. In the outer harbour there are 3 tanker berths each with a low water depth of 44 feet at the Kwinana oil refinery, 1 berth at the nearby steelworks jetty with a low water depth of 30 feet, and 1 berth at the alumina works jetty with a low water depth of 40 feet. There is also a special berth for the handling of explosives. Gross earnings for 1965–66 amounted to $7,870,126, working expenses to $6,040,556, interest charges on loan capital $742,502, sinking fund contributions $200,964, and capital and other funds employed totalled $18,649,104.

Albany Harbour Board. The Albany Harbour is controlled by a board of five members appointed by the Government. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 33 feet. In the approaches to wharf berths the depth is 33 feet. Berthing accommodation totals 3,615 feet, comprising 1,115 feet at the wharf berths and 2,500 feet at the Deepwater Jetty. Gross earnings for the year 1965–66 amounted to $402,635, working expenses $145,555, interest and sinking fund charges $209,381, and capital account totalled $3,738,945.

Bunbury Harbour Board. The Bunbury Harbour is controlled by a board of five members appointed by the Government. The depth of water in the harbour is 30 feet and berthing accommodation is 4,808 feet. Gross earnings for the year 1965–66 amounted to $624,465, working expenses $233,528, interest on loan capital $294,857, and capital account totalled $6,725,951.

Other ports. The following ports are controlled by the State Government Harbour and Light Department: Broome, Busselton, Carnarvon, Derby, Esperance, Geraldton, Onslow, Point Samson, Port Hedland, and Wyndham. Ports privately controlled comprise Yampie and Dampier, both operated by iron ore mining companies, and Exmouth, the port serving the communications installation at North West Cape. Lighter facilities at Barrow Island are operated by a private organisation currently developing a petroleum oil field.

Tasmania

There are 8 marine boards and 1 harbour trust in Tasmania. The marine boards control the ports of Hobart, Launceston, Stanley (Circular Head), Burnie and Wynyard (Table Cape), Devonport and Ulverstone, Strahan, Currie (King Island), and Whitemark (Flinders Island), and the harbour trust controls the port of Smithton. Hobart, Launceston, Burnie, and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable overseas shipping. Depths of water at wharves vary, in general, between 16 and 40 feet.

MARINE BOARDS AND HARBOUR TRUST, TASMANIA: FINANCES, 1964-65 AND 1965-66
($'000)

Authority	Loan indebtedness at 30 June (*a*)	Receipts (revenue account)		Expenditure (revenue account)		Surplus(+) or deficit(−)
		Wharfage charges	Total	Loan charges	Total	
Hobart	2,645	806	1,560	326	1,168	+392
Launceston	2,892	630	1,781	242	1,632	+149
Devonport	4,142	526	823	354	932	−109
Burnie	8,767	626	1,241	550	1,284	− 43
Circular Head	168	11	28	19	32	− 4
King Island	95	35	54	7	43	+ 11
Strahan	27	25	36	4	46	− 10
Flinders Island	3	15	17	2	8	+ 9
Smithton	..	..	1	..	2	− 1
Total, 1965-66	**18,739**	**2,674**	**5,541**	**1,504**	**5,147**	**+394**
1964-65	**17,099**	**2,542**	**5,062**	**1,302**	**5,015**	**+ 47**

(*a*) The total of new loans raised during 1965–66 was $2,055,000, of which Launceston raised $200,000, Devonport $400,000, Burnie $1,400,000, King Island $18,000, and Circular Head $37,000.

Fire brigades

New South Wales

A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act, 1909–1958, and 158 fire districts had been constituted at the end of 1965. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and the insurance companies three-quarters. The Board's borrowing power is limited to $2,000,000.

At 31 December 1965 the actual strength of the Fire Brigade throughout the fire districts of New South Wales was 422 officers and 1,290 permanent and 2,656 volunteer firemen. Corresponding figures for the Sydney Fire District were 344, 1,145 and 322. The revenue for the year 1965 was $8,456,000, made up as follows: from the Government, $1,044,000; municipal and shires, $1,044,000; fire insurance companies and firms, $6,263,000; and from other sources, $104,000. The disbursements for the year were $8,196,000. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Commonwealth Government.

Under the Bush Fires Act, 1949–1963 a Bush Fire Fighting Fund exists from which finance is provided for the prevention and fighting of bush fires. Contributions to the Fund by the Government, councils and insurance companies are in the proportion of one-quarter, one-quarter and one-half, respectively. At 30 June 1966 Volunteer Brigades equipped by means of this fund numbered 2,500 with an active membership of about 150,000 persons. The approved expenditure from the Fund for equipment, up to 30 June 1967, amounted to $7,982,000.

Victoria

In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of ten members, including an employees' representative, and the Country Fire Authority consisting of eleven members.

Metropolitan Fire Brigades Board. The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. On 30 June 1966 the Board had under its control 44 stations, 1,088 permanent staff, 229 special service and clerical, etc. staff, and 14 part-time firemen. The total receipts for 1965–66 were $5,519,192, comprising contributions $4,707,900, receipts for services $510,126, and interest and sundries $301,166. The expenditure was $5,733,753.

Country Fire Authority. This authority is responsible for the prevention and suppression of fires in the 'country area of Victoria', which embraces the whole of the State outside the Metropolitan Fire District, excluding State forests and certain Crown lands. The country area has been divided into twenty-five fire control regions, four of which (Ballarat, Bendigo, Geelong and the Dandenong, Chelsea and Frankston areas) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30 June 1966 the Country Fire Authority Act applied to 192 insurance companies and 206 urban and 1,048 rural fire brigades. The effective registered strength of the brigades was 112,984 members. Income for the year 1965–66 amounted to $2,140,287. Total expenditure other than loan amounted to $1,957,905.

Queensland

Fire districts are constituted under the Act of 1964. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows: Treasury one-seventh, insurance companies five-sevenths, and local authorities one-seventh. The insurance companies' contribution is paid to the State Government and thence to fire brigades.

At 30 June 1965 there were 84 Fire Brigade Boards. The number of stations was 162 and full-time staff numbered 968, including 25 administrative, 223 officers and 720 firemen. Volunteers numbered 72. Part-time staff numbered 1,259, including 85 administrative, 131 officers and 1,043 firemen. The total revenue for the year 1964–65 was $3,681,990, received mainly from the following sources: Government $496,496, local authorities $496,496, insurance companies $2,482,542. Loan receipts (Government and other) were $707,732. The total expenditure for the year was $3,728,936, the chief items being salaries and wages $2,571,958, and interest and redemption of loans $431,448.

South Australia

The Fire Brigades Act, 1936–1958 provides for a board of five members, that the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies and two-ninths by the municipalities concerned, and that when the

Treasury proportion exceeds its statutory contribution of approximately $26,000, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30 June 1966 there were altogether 37 fire brigade stations, of which 13 were metropolitan and 24 country.

The strength of the permanent staff at 30 June 1966 was 460, including 337 officers and men, 89 country auxiliary firemen and 34 other employees (including maintenance workers). The total revenue for the year 1965–66 was $1,430,746, including contributions of $1,208,574 made up as follows: insurance companies $727,159, Treasury $190,552 and municipalities $290,863. The Treasury contribution includes a special grant of $164,292.

Western Australia

By the provisions of the *Fire Brigades Act, 1942–1966* certain local government areas are constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 52 fire districts at 30 September 1966. The contribution to the Board is made in the proportion of 16 per cent from the Government, 20 per cent from local government authorities, and 64 per cent from insurance companies. The number of local government authorities and insurance companies who contributed numbered 74 and 164 respectively. The brigades throughout the State controlled by the Western Australian Fire Brigades Board at 30 September 1966 numbered 71, with a staff of 1,628, including 315 permanent officers and firemen and 1,313 volunteer brigade officers and firemen. The revenue for the year ended 30 September 1966 was $1,732,357 and the expenditure $1,680,266.

Under the *Bush Fires Act, 1954–1965* a Bush Fires Board, consisting of thirteen members, six of whom are nominated by the Country Shire Councils' Association, was set up to advise the Minister for Lands on bush fire control. The Act also provides for the registration of bush fire control officers, who numbered 2,065 at 30 June 1966, and the establishment of bush fire brigades, 871 at 30 June 1966. Many individual brigades are large organisations with numerous self-contained sections.

Tasmania

The *Fire Brigades Act* 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigade boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of two persons nominated by the Minister, one person elected by the City or Municipal Councils' representatives and three persons elected by the insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of one-quarter each from the treasury and the municipalities and one-half from the insurance companies concerned. The cost for the year 1965–66 amounted to $540,269. There were, at 30 June 1966, 23 boards controlling 35 stations, and their aggregate staffs numbered 570 (officers and firemen), including 134 permanent firemen, 366 part-time firemen and 70 volunteers; the volunteers all operate under the Hobart Board in the forested and mountainous Fern Tree area.

CHAPTER 22

RURAL INDUSTRY

This chapter is divided into four major parts:

- Introduction, dealing with the disposal of Crown lands, closer settlement and war service settlement (all transferred from the former chapter Land Tenure and Settlement) and general rural activity in Australia;
- Agricultural production;
- Pastoral production; and
- Other rural industries, which includes the dairying, poultry and bee industries.

For greater detail on the subjects dealt with in this chapter *see* the annual bulletins *Rural Industries*, *Value of Production*, and *Secondary Industries* (regarding butter, cheese, etc. factories) issued by this Bureau. Current information on commodities produced is obtainable in the *Quarterly Summary of Australian Statistics*, *Monthly Review of Business Statistics*, *Monthly Bulletin of Production Statistics*, and *Digest of Current Economic Statistics* (monthly). The series of bulletins *Classifications of Rural Holdings by Size and Type of Activity* (*see* page 883) shows particulars of rural holdings classified by size, nature and area of crops, and numbers of livestock, and also according to main type of activity. The mimeographed annual *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia* contains details of the production and utilisation of foodstuffs. The following mimeographed publications also contain considerable detail on the particular subjects dealt with.

General. *Value of Production and Indexes of Price and Quantum of Farm Production* (annual), *Value of Primary Production* (*Preliminary Statement*) (annual), *Value of Primary Production* (*Preliminary Estimates*) (annual), *Farm Machinery on Rural Holdings* (annual), *Tractors on Rural Holdings*, 31 *March* 1966 (detailed information), *New Tractors: Receipts, Sales and Stocks* (quarterly), and *New Agricultural Machinery* (quarterly).

Agricultural production. *Rural Land Use and Crop Production* (annual), *Agricultural Statistics* (*Preliminary Statement*) (annual), *The Wheat Industry* (two a year), *The Fruit Growing Industry* (annual), and *Fruit Statistics* (*Preliminary Statement*) (annual).

Pastoral production. *Livestock Statistics* (annual), *Livestock Numbers* (annual), *The Meat Industry* (monthly), *Wool Production* (annual), and *Wool Production and Utilisation* (annual).

Other rural production. *The Dairying Industry* (monthly and half-yearly), *Livestock Statistics* (annual), *Livestock Numbers* (annual), *Manufacturing Industries No.* 20.—*Bacon Curing* and *No.* 21.—*Butter, Cheese and Condensed, Concentrated, etc., Milk* (annual), *Production Summaries No.* 36.—*Preserved Milk Products* and *No.* 55.—*Butter and Cheese* (monthly), and *Bee-farming* (annual).

Values of Australian overseas trade shown throughout this chapter are expressed as f.o.b. port of shipment.

Throughout this chapter yearly periods for area and production of crops relate to years ended 31 March. Other periods in respect of e.g. factory and trade statistics relate to years ended 30 June.

INTRODUCTION

Disposal of Crown lands

The information on pages 875–82, was formerly included in a separate chapter Land Tenure and Settlement (*see* Year Book No. 52, pages 78–86).

Land legislation and tenures

The following sections contain figures showing the extent of the different land tenures in the several States and Territories, classified under broad headings indicating the nature of the tenure, together with some general descriptive matter. Information in greater detail, descriptions of the land tenure systems of the several States and the internal Territories, and conspectuses of land legislation in force and of the systems of land tenure were provided in Year Book No. 48 and previous issues (*see also* Year Book No. 50, page 85 and List of Special Articles, etc. preceding General Index to this Volume).

Free grants and reservations

Provision exists in all States except Tasmania for the disposal of Crown lands for public purposes by free grants, and in all States for the temporary and/or permanent reservation of Crown lands for public purposes. In the Northern Territory any Crown lands not subject to any right of, or contract for, purchase may be resumed for public purposes, and the whole or any portion of the lands resumed may be reserved for that purpose. In the Australian Capital Territory, under the *Seat of Government* (*Administration*) *Act* 1910, Crown lands may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act.

AREAS OF CROWN LANDS RESERVED: STATES AND TERRITORIES, 1962 TO 1966

('000 acres)

Year	N.S.W. (*a*)	Vic. (*b*)	Qld (*b*)	S.A. (*a*)	W.A. (*a*)	Tas. (*a*)	N.T. (*a*)	Total (*c*)
1962 . .	15,883	8,783	25,126	22,743	68,672	3,850	59,595	204,652
1963 . .	15,958	8,810	25,053	22,754	74,353	3,994	59,663	210,585
1964 . .	15,931	8,847	25,234	22,764	76,450	4,098	60,903	214,227
1965 . .	15,943	8,885	25,451	22,802	78,088	4,116	60,903	216,188
1966 . .	15,937		25,662	22,878	78,226	4,191	60,922	

(*a*) At 30 June. (*b*) At 31 December. (*c*) Excludes the Australian Capital Territory.

The purposes for which areas were reserved are given hereunder for the latest years available as set out in the table above.

New South Wales. For travelling stock, 4,958,978 acres; forest reserves, 1,539,292 acres; water and camping reserves, 760,863 acres; mining reserves, 1,033,950 acres; for recreation and parks, 726,620 acres; other reserves, 6,917,345 acres; total, 15,937,048 acres.

Victoria. For roads, 1,706,981 acres; water reserves, 314,643 acres; agricultural colleges, 24,409 acres; forest and timber reserves, 5,753,921 acres; mallee reserves, 410,000 acres; other reserves, 675,022 acres; total, 8,884,976 acres.

Queensland. For timber reserves, 1,954,956 acres; State forests and national parks, 7,666,115 acres; Aboriginal reserves, 6,642,535 acres; for streets, surveyed roads and stock routes, 4,024,693 acres; general reserves, 5,374,178 acres; total, 25,662,477 acres.

South Australia. Total area of surveyed roads, railways and other reserves, 22,877,721 acres, including 18,833,822 acres set apart as Aboriginal reserves.

Western Australia. For State forests, 4,448,827 acres; timber reserves, 1,859,538 acres; other reserves 71,917,590 acres; total, 78,225,955 acres.

Tasmania. For forest reserves, 3,607,000 acres; national parks, 584,000 acres; total, 4,191,000 acres.

Northern Territory. For Aboriginal, defence and public requirements, 60,921,977 acres.

Conditional and unconditional purchases of freehold

Crown lands in the States may be disposed of by unconditional purchase at public auction or by certain other forms of purchase (for details *see* Year Book No. 48, pages 91–2). Conditional purchases of various types may also be made. In the Northern Territory only 0.1 per cent of the total area is alienated, the remainder being held under lease or licence, or reserved for various purposes or unoccupied. In the Australian Capital Territory about 18 per cent of the area is alienated or in process of alienation in consequence of contracts existing prior to the establishment of the Territory.

Leases and licences

Well over half the area of the States of New South Wales and South Australia and of the Northern Territory and more than four-fifths of that of Queensland are occupied under some form of lease or licence. In Victoria, only about one-tenth of the area is leased or licensed, more than half being alienated; in Western Australia, more than one-third is leased or licensed, most of the remainder being unoccupied; and in Tasmania only one-twelfth is leased or licensed, while about half the area of the State is occupied by the Crown or unoccupied, and the remainder alienated. Areas leased or licensed in the States are held under Crown lands Acts, closer settlement Acts, mining Acts, etc., and in the Territories under various Ordinances.

Land Acts and Ordinances. The types of lease and licence which obtain under land legislation cover a wide range, and vary with each State or Territory. The following are examples: grazing or pastoral, settlement and closer settlement, settlement purchase, conditional and unconditional purchase, perpetual and Crown; however, the variations of these forms and the special forms of lease and licence which exist would extend this list considerably. Details of the various types in existence are given in Year Book No. 48, pages 93–4, and some detail is included in the tables on pages 878–81 of this chapter.

AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING AND FORESTRY: STATES AND TERRITORIES, 1962 TO 1966

('000 acres)

Year	N.S.W. (*a*)	Vic. (*b*)	Qld (*b*)	S.A. (*a*)	W.A. (*a*)	Tas. (*a*)	N.T. (*a*) (*c*)	A.C.T. (*a*) (*c*)	Total
1962 .	111,809	5,542	364,928	146,889	235,914	1,092	174,102	292	1,040,568
1963 .	110,066	5,936	364,140	146,807	243,976	1,032	178,017	289	1,050,263
1964 .	111,386	6,147	367,209	146,382	242,309	1,062	191,436	285	1,066,216
1965 .	111,567	6,263	365,318	147,661	241,911	984	191,840	282	1,065,826
1966 .	111,262		362,866	150,422	241,662	933	190,688	279	

(*a*) Year ended 30 June. (*b*) Year ended 31 December. (*c*) Leases and licences for all purposes.

Closer settlement and war service settlement

Closer settlement

Particulars of the methods of acquisition and disposal of land for the closer settlement of civilians and returned service personnel (1914–18 War) in the several States are given in issues of the Year Book up to No. 22 (*see* No. 22, pages 163–9), and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. However, the amalgamation in some States of closer settlement records with those of other authorities has since made it impossible to obtain up-to-date figures for those States and for Australia as a whole. Page 96 of Year Book No. 48 contains particulars as at 30 June 1960 of the areas and costs for those States for which separate information is available.

War Service Land Settlement Scheme

The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939–45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through Loan (War Service Land Settlement) Acts. Finance for other aspects of the scheme in all States is provided by annual parliamentary appropriation. The *States Grants* (*War Service Land Settlement*) *Act* 1952 provides that the responsible Commonwealth Minister may make grants of financial assistance to the States under such terms as he may from time to time determine.

New South Wales, Victoria and Queensland agreed, at the inception of the scheme, to find their own finance for the acquisition and development of properties. In 1954 Queensland abandoned the scheme and made available for general settlement all unallotted lands held under it. Detailed information about the agreements and the methods of operation and administration of the scheme are contained in earlier Year Books (*see* List of Special Articles, etc., preceding General Index to this volume).

WAR SERVICE LAND SETTLEMENT: SUMMARY, STATES, TO 30 JUNE 1966

State	Land acquired	Farms allotted		Farms in course of development		Other
	acres	no.	acres	no.	acres	acres
New South Wales .	9,094,021	3,047	9,094,021	..	..	..
Victoria . . .	1,181,599	3,048	1,181,599	..	..	..
Queensland . . .	398,524	470	218,640	..	..	(*a*)179,884
South Australia . .	755,873	1,021	690,225	..	..	(*b*) 65,648
Western Australia .	2,053,972	1,010	1,905,475	..	..	(*b*)148,497
Tasmania . . .	449,629	543	431,550	9	11,700	(*b*) 6,379
Total . . .	**13,933,618**	**9,139**	**13,521,510**	**9**	**11,700**	**400,408**

(*a*) War Service Land Settlement was discontinued in 1954, and unallotted lands were made available for general settlement. (*b*) Includes land disposed of outside the scheme and discrepancies to be corrected upon survey.

Particulars of expenditure on war service land settlement are given in Chapter 20, Public Finance (*see* pages 775–6).

Alienation and occupation of Crown lands

The figures in the previous parts of this chapter show separate particulars of various forms of land settlement. The following tables set out the position with regard to the tenure of land in each State, in the Northern Territory and in the Australian Capital Territory for the latest years available. A summary for each State and Territory and for Australia as a whole is also included. Particulars for each year from 1955 to 1965 appear in the bulletin *Rural Industries* No. 3, 1964–65, page 1. The area occupied includes roads, permanent reserves, forests, etc. In some cases lands which are permanently reserved from alienation are occupied under leases or licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

New South Wales

The total area of New South Wales is 198,037,120 acres, of which 30.9 per cent had been alienated at 30 June 1966; 2.6 per cent was in process of alienation; 57.1 per cent was held under leases and licences; and the remaining 9.4 per cent was unoccupied or held by the Crown.

ALIENATION AND OCCUPATION OF CROWN LAND: NEW SOUTH WALES
30 JUNE 1966
(Acres)

Tenure	Area	Tenure	Area
Alienated	61,118,244	Held under leases and licences—	
		Homestead selections and grants	1,709,521
		Alienable leases, long-term and perpetual	23,870,082
		Long-term leases with limited right of alienation	1,295,890
		Other long-term leases	81,559,373
		Short-term leases and temporary tenures	2,827,440
		Forest leases	1,667,155
		Mining and auriferous leases	231,934
		Total leased or licensed	*113,161,395*
In process of alienation—		Unoccupied—	
Conditional purchases	3,936,484	Particulars of Lord Howe Island not being available, the area, 3,220 acres, is included under unoccupied (approximate)	18,559,932
Closer settlement purchases	754,693		
Soldiers' group purchases	119,911		
Other forms of sale	386,461		
Total in process of alienation	*5,197,549*	**Total area of State**	**198,037,120**

Victoria

The total area of Victoria is 56,245,760 acres, of which 56.7 per cent had been alienated up to 31 December 1965; 4.1 per cent was in process of alienation under deferred payments and closer settlement schemes; 11.1 per cent was occupied under leases and licences; and 28.1 per cent was unoccupied or held by the Crown.

ALIENATION AND OCCUPATION OF CROWN LANDS: VICTORIA
31 DECEMBER 1965
(Acres)

Tenure	Area	Tenure	Area
Alienated	31,866,897	Leases and licences held—	
		Under Lands Department—	
		Perpetual leases	157,649
		Agricultural college leases	24,409
		Other leases and licences	1,543
In process of alienation—		Temporary (yearly) grazing licences(*a*)	6,000,900
Exclusive of mallee and closer settlement lands	127,016		
Mallee lands (exclusive of closer settlement lands)	910,889	*Total leased or licensed*	*6,184,501*
Closer settlement lands	1,255,308		
		Occupied by the Crown or unoccupied	15,901,149
Total in process of alienation	*2,293,213*	**Total area of State**	**56,245,760**

(*a*) In addition, 78,996 acres of reserved Crown lands are held under grazing licenses.

Queensland

The total area of this State is 426,880,000 acres, of which, on 31 December 1966, 6.2 per cent was alienated; 1.8 per cent was in process of alienation; and 85.6 per cent was occupied under leases and licences. The remainder, 6.3 per cent, was either unoccupied or held as reserves or for roads.

ALIENATION AND OCCUPATION OF CROWN LANDS: QUEENSLAND
31 DECEMBER 1966
(Acres)

Tenure	Area	Tenure	Area
Alienated	26,534,242	Occupied under leases and licences—	
		Pastoral leases	242,589,600
		Occupation licences	16,595,840
		Grazing selection and settlement farm leases	92,501,483
		Leases—special purposes (*a*)	4,923,385
		Mining leases	2,591,000
		Perpetual lease selections	5,988,643
		Auction perpetual leases, etc.	48,549
		Forest grazing leases (of reserves)	211,120
		Development leases	6,897
		Total leased or licensed	*365,456,517*
		Reserves (net, not leased)	17,413,390
		Surveyed roads and surveyed stock routes	4,024,693
		Unoccupied	5,610,068
In process of alienation	7,841,090	**Total area of State**	**426,880,000**

(*a*) Special leases of Crown land, 910,111 acres; special leases of reserves, 4,013,274 acres.

South Australia

The area of South Australia is 243,244,800 acres and at 30 June 1966, 6.6 per cent was alienated; 0.2 per cent in process of alienation; 61.8 per cent occupied under leases and licences; and 31.4 per cent occupied by the Crown or unoccupied.

ALIENATION AND OCCUPATION OF CROWN LANDS: SOUTH AUSTRALIA 30 JUNE 1966

(Acres)

Tenure	Area	Tenure	Area
Alienated	16,110,907	Held under lease and licence(*a*)—	
		Perpetual leases, including irrigation leases	20,677,830
		Pastoral leases	126,829,719
		Other leases and licences	2,914,222
		Total leased or licensed	*150,421,771*
		Area unoccupied(*b*)	76,321,322
In process of alienation	390,800	**Total area of State**	**243,244,800**

(*a*) Mining leases and licences have also been issued over an area comprising 224 226 000 acres.
(*b*) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

Western Australia

The total area of Western Australia is 624,588,800 acres, of which, at 30 June 1966, 4.9 per cent was alienated; 2.4 per cent was in process of alienation; and 39.4 per cent was occupied under leases and licences issued by the Lands, Mines or Forests Departments. The balance of 53.3 per cent was unoccupied.

ALIENATION AND OCCUPATION OF CROWN LANDS: WESTERN AUSTRALIA 30 JUNE 1966

(Acres)

Tenure	Area	Tenure	Area
Alienated	30,487,407	Leases and licences in force—	
		(i) Issued by Lands Department—	
		Pastoral leases	235,113,241
		Special leases	4,002,666
		Leases of reserves	646,471
In process of alienation—		Residential lots	4,475
Free homestead farms	303,403	Perpetual leases	1,895,058
Conditional purchase	14,330,201	(ii) Issued by Mines Department—	
Selections under Part VIII. of the Land Act	227,892	Gold-mining leases	18,573
Town and suburban lots	2,176	Mineral leases	25,150
Crown grants of reserves	64,463	Miners' homestead leases	32,684
		(iii) Issued by Forests Department—	
		Timber permits	4,300,123
		Total leased or licensed	*246,038,441*
		Area unoccupied	333,134,817
Total in process of alienation	*14,928,135*	**Total area of State**	**624,588,800**

Tasmania

The total area of Tasmania is 16,885,000 acres, of which, at 30 June 1966, 39.2 per cent had been alienated; 1.2 per cent was in process of alienation; 7.7 per cent was occupied under leases and licences for either pastoral, agricultural, timber or mining purposes, or for closer settlement; while the remainder (51.9 per cent) was unoccupied or reserved by the Crown.

ALIENATION AND OCCUPATION OF CROWN LANDS: TASMANIA
30 JUNE 1966

(Acres)

Tenure	Area
Alienated	6,616,065
In process of alienation	207,737
Leases and licences—	
(i) Issued by Lands Department for—	
Pastoral purposes	875,245
Timber getting	313,755
Closer settlement	15,747
Leases and licences—*continued*	
(i) Issued by Lands Department for—*continued*	
Soldier settlement	40,882
Short-term leases	1,128
(ii) Issued by Mines Department	44,606
Total leased or licensed	*1,291,363*
Area occupied by the Crown or unoccupied	8,769,835
Total area of State	**16,885,000**

Northern Territory

The area of the Northern Territory is 332,979,200 acres, of which, at 30 June 1966 only 0.1 per cent was alienated; 57.3 per cent was held under leases and licences; 18.3 per cent was reserved for Aborigines, defence and public requirements; and the remaining 24.3 per cent was unoccupied and unreserved.

The following shows the mode of occupancy of areas at 30 June 1966: alienated, 324,802 acres; leased—pastoral leases, 174,451,920 acres; other leases, licences and mission stations, 16,236,069 acres; total leased, 190,687,989 acres; reserved for Aboriginal, defence and public requirements, 60,921,977 acres; unoccupied and unreserved, 81,044,432 acres; total 332,979,200 acres.

Australian Capital Territory

Alienated land of the Territory at 30 June 1966 comprised 10.6 per cent of the total area; land in process of alienation 6.9 per cent; land held under lease and licence 46.4 per cent; land otherwise occupied, including city tenures, 12.4 per cent; and unoccupied 23.7 per cent.

The following are the particulars of land areas in the Australian Capital Territory at 30 June 1966: alienated 63,754 acres; in process of alienation 41,224 acres; leased—grazing, agricultural, etc., leases, 260,133 acres; grazing licences, 12,359 acres; total leased, 272,492 acres; otherwise occupied, including city area leases, 63,146 acres; unoccupied, 142,313 acres; total, 582,929 acres. Including the Jervis Bay area of 18,000 acres—6,266 acres leased and 11,734 acres otherwise occupied—the grand total for the whole Territory is 600,929 acres.

Summary

The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1966.

ALIENATION AND OCCUPATION OF CROWN LANDS: STATES AND TERRITORIES 1966

State or Territory	Private lands				Crown lands				Total area
	Alienated		In process of alienation		Leased or licensed		Other (*a*)		
	'000 acres	Per cent	'000 acres	Per cent	'000 acres	Per cent	'000 acres	Per cent	'000 acres
N.S.W.(*b*) . .	61,118	30.9	5,198	2.6	113,161	57.1	18,560	9.4	198,037
Vic.(*c*) . .	31,867	56.7	2,293	4.1	6,185	11.1	15,901	28.1	56,246
Qld(*d*) . .	26,534	6.2	7,841	1.8	365,457	85.6	27,048	6.3	426,880
S.A.(*b*) . .	16,111	6.6	391	0.2	150,422	61.8	76,321	31.4	243,245
W.A.(*b*) . .	30,487	4.9	14,928	2.4	246,038	39.4	333,135	53.3	624,589
Tas.(*b*) . .	6,616	39.2	208	1.2	1,291	7.7	8,770	51.9	16,885
N.T.(*b*) . .	325	0.1	..	..	190,688	57.3	141,966	42.6	332,979
A.C.T.(*d*)(*e*) .	64	10.6	41	6.9	279	46.4	217	36.1	601
Australia .	173,122	9.1	30,900	1.6	1,073,521	56.5	621,918	32.7	1,899,462

(*a*) Occupied by Crown; reserved; unoccupied; unreserved. (*b*) At 30 June. (*c*) At 31 December 1965. (*d*) At 31 December 1966. (*e*) Includes Jervis Bay area.

Number and area of rural holdings

Number and area

A holding in Australia has been defined by statisticians on a more or less uniform basis, and discrepancies which exist are not of sufficient importance to prevent comparisons. For the purpose of these statistics a holding has been defined as land of one acre or more in extent used in the production of agricultural produce or for the raising of livestock and the production of livestock products.

There are considerable fluctuations from time to time in the numbers of very small holdings, and it is very difficult to determine in some cases whether or not they are rural holdings within the definition. In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied for extensive grazing under short-term lease or other arrangement, and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

RURAL HOLDINGS: NUMBER AND AREA, STATES AND TERRITORIES 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF RURAL HOLDINGS									
1961–62 . .	76,949	69,866	43,287	28,886	22,082	11,117	284	217	252,688
1962–63 . .	76,294	69,700	43,284	28,922	22,554	10,974	281	217	252,226
1963–64 . .	77,339	69,775	43,183	28,711	22,770	10,949	299	214	253,240
1964–65 . .	77,098	69,737	43,565	28,754	22,856	10,979	307	207	253,503
1965–66 . .	76,158	69,199	43,914	28,759	22,853	10,777	305	203	252,168
TOTAL AREA OF RURAL HOLDINGS ('000 acres)									
1961–62 . .	172,327	37,754	374,501	156,898	252,783	6,551	168,045	377	1,169,235
1962–63 . .	172,038	37,709	376,788	156,697	262,660	6,422	164,955	376	1,177,645
1963–64 . .	172,076	37,798	376,687	158,905	266,556	6,377	165,734	373	1,184,506
1964–65 . .	172,148	37,844	377,010	156,955	268,553	6,420	171,482	358	1,190,770
1965–66 . .	171,161	37,844	380,325	159,394	270,054	6,496	175,862	355	1,201,492

Land utilisation of rural holdings

The following table shows the purposes for which the land on the rural holdings referred to in the preceding paragraph was used.

RURAL HOLDINGS: LAND UTILISATION, 1961–62 TO 1965–66
('000 acres)

Year	Area used for crops(*a*)	Land lying fallow(*b*)	Area under sown grasses and clovers(*c*)	Balance of holdings (*d*)	Total area of holdings
1961–62	27,907	8,049	39,063	1,094,216	1,169,235
1962–63	30,056	8,719	40,991	1,097,879	1,177,645
1963–64	29,948	8,510	44,211	1,101,837	1,184,506
1964–65	32,251	8,466	47,159	1,102,894	1,190,770
1965–66—					
New South Wales	8,780	3,771	10,884	147,727	171,161
Victoria	5,396	2,620	14,804	15,023	37,844
Queensland	3,990	860	3,739	371,736	380,325
South Australia	5,931	1,201	5,923	146,340	159,394
Western Australia	8,449	1,942	11,382	248,281	270,054
Tasmania	242	76	1,685	4,493	6,496
Northern Territory	4	..	17	175,841	175,862
Australian Capital Territory	6	1	86	262	355
Australia	**32,798**	**10,471**	**48,519**	**1,109,703**	**1,201,492**

(*a*) Excludes (i) duplication on account of area double cropped, except for New South Wales and South Australia, and (ii) clovers and grasses cut for hay and seed which have been included in Area under sown grasses and clovers, and differs therefore from crop area figures shown later in this chapter. (*b*) Excludes short or summer fallow. (*c*) Includes paspalum. (*d*) Used for grazing, lying idle, etc.

Classification by size and type of activity

Some of the information obtained from the 1965–66 Agricultural and Pastoral Census has been classified by size of principal characteristics (area of holdings, area of sown grasses and clovers, area of selected crops, and numbers of livestock). In addition, all holdings have been classified according to type of activity. Tables showing this information, for statistical divisions and States, and an outline of the methods used will be published in a series of bulletins *Classification of Rural Holdings by Size and Type of Activity*, 1965–66. Similar information was published in a series of bulletins for the year 1959–60. A size classification for each State is available for the year 1955–56.

Employment on rural holdings

Persons engaged

The following table shows, for each State and Territory, the recorded number of males working on rural holdings. Particulars for females are not available except for New South Wales. Additional particulars relating to the number of males employed in agriculture up to 1941–42 are shown in Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

MALES(*a*) ENGAGED ON RURAL HOLDINGS: STATES AND TERRITORIES
31 MARCH 1966

Males engaged	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.(*b*)	A.C.T.	Aust.
Permanent—									
Owners, lessees or share-farmers	63,181	58,543	44,291	23,035	20,530	7,450	198	134	217,362
Relatives of owner, lessee or share-farmer over 14 years of age, not receiving wages or salary	2,263	5,073	2,667	912	1,173	6	42	10	12,146
Employees, including managers and relatives working for wages or salary	27,812	14,232	17,878	8,172	8,506	4,073	653	143	81,469
Total permanent males	*93,256*	*77,848*	*64,836*	*32,119*	*30,209*	*11,529*	*893*	*287*	*310,977*
Temporary	20,296	26,284	12,516	10,585	2,817	5,715	1,185	27	79.425
Total males	**113,552**	**104,132**	**77,352**	**42,704**	**33,026**	**17,244**	**2,078**	**314**	**390,402**

(*a*) Details for females not available except for New South Wales. (*b*) Includes 1,034 male full-blood Aboriginals employed as temporary employees.

Information regarding the number of persons (males and females) working full-time on rural holdings in Australia at 31 March of years to 1958 appears in Year Book No. 50, page 987, and in earlier Year Books. Data for subsequent years are the subject of investigation and are not available at this stage.

Salaries and wages paid

Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings are shown below for the year 1965-66. Data for New South Wales and Victoria, and hence Australia, are not available.

EMPLOYEES ON RURAL HOLDINGS: SALARIES AND WAGES PAID(*a*)
STATES AND TERRITORIES, 1965-66
($'000)

Employees	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Permanent—Males	(*b*)	(*b*)	33,479	14,064	16,524	7,392	1,317	432	n.a.
Females			2,083	439		167	130	32	
Temporary(*c*)—Males			46,357	10,407	13,623	3,941	734	137	
Females				1,066		992		10	
Total			81,919	25,976	30,147	12,492	2,181	611	

(*a*) Includes value of keep. (*b*) Not available; subject to investigation. (*c*) Includes amounts paid to contractors.

Similar information for Australia for years up to 1957–58 is given in Year Book No. 50, page 988, and in earlier Year Books. Particulars for subsequent years are the subject of investigation and are not available at this stage.

Persons residing permanently on holdings

Particulars of persons (of all ages) residing permanently on rural holdings in each State and Territory at 31 March 1966, and throughout Australia for a series of years, are shown on page 885.

PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS STATES AND TERRITORIES, 31 MARCH 1966

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males	155,818	139,167	103,151	57,932	50,126	25,123	1,281	441	533,039
Females	135,582	124,014	85,390	51,298	41,581	22,767	684	367	461,683
Total	**291,400**	**263,181**	**188,541**	**109,230**	**91,707**	**47,890**	**1,965**	**808**	**994,722**

PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS AUSTRALIA, 31 MARCH 1962 TO 1966

	31 March—				
	1962	1963	1964	1965	1966
Males	544,709	540,893	541,394	538,496	533,039
Females	465,238	464,048	465,990	464,416	461,683
Total	**1,009,947**	**1,004,941**	**1,007,384**	**1,002,912**	**994,722**

Technical aspects of rural industry

Farm machinery on rural holdings

The history of the development of large-scale field crops and sown pastures in Australia is essentially also the history of the mechanisation of the rural industries. This may be divided into four phases.

The first phase extended from initial settlement to the mid-nineteenth century, when agriculture was primarily local and non-commercial, and confined by the use of hand methods to small areas and low production per farm worker.

The invention of an effective wheat stripper in South Australia in 1843 and the extension of its use into Victoria and New South Wales, however, greatly increased the area which could be harvested in a season. This initiated the second phase, which continued with the development of stump-jump implements in the 1870's and the scrub roller and mulleniser in the 1890's. These later developments made possible an extension of the wheat belt into the drier mallee lands of Victoria and South Australia. By the turn of the century machinery had thus been developed to conduct all cropping operations on an extensive basis.

The third major change in farm machinery followed the 1914–18 War, when tractor power became increasingly available in a variety of models and sizes. The increase in numbers of tractors on rural holdings and higher operating speeds led in turn to new and improved types of farm machinery drawn by tractors. These trends were interrupted by the economic depression of the 1930's.

After the 1939–45 War there was a widespread expansion of labour-saving machinery and devices in all sectors of rural industry. Clearing methods were extended with the bulldozer, log, chain, and hi-ball units, and cultivation was improved by means of large disc ploughs and disc harrows, and seeding and harvesting machinery. These methods were extended to crops for which methods involving greater use of manual labour had previously been employed. Milking machines almost entirely replaced hand milking on dairy farms, and labour-saving machinery was introduced into farm and station development and maintenance operations. These operations included fencing, bulk transport of grain and fodder, pasture treatment, fodder conservation, and pasture improvement.

The tables following show data for the principal types of farm machinery on rural holdings in the several States and Territories at 31 March 1966 and throughout Australia for a series of years. A more detailed analysis of tractors on rural holdings according to horse-power, type of fuel used, and age of tractor has been published in the Statistical Bulletin *Tractors on Rural Holdings—Australia, 31 March* 1966.

FARM MACHINERY ON RURAL HOLDINGS: STATES AND TERRITORIES
31 MARCH 1966

Machinery	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cultivating—									
Rotary hoes and rotary tillers—									
Self-contained power unit	9,837	7,354	3,534	4,228	1,647	1,199	64	n.a.	*a* 27,863
Tractor-drawn	7,229	4,662	3,879	1,655	1,539	626	14		*a* 19,604
Seeding and planting—									
Grain drills—									
Combine type	27,813	19,604	12,756	15,589	13,593	1,416	29	66	90,866
Other types	5,765	9,586	2,431	5,201	4,752	2,620	9	37	30,401
Maize and cotton planters	7,146	762	6,519	..	71	..	21	4	14,523
Fertiliser distributors and broadcasters	21,417	28,219	12,842	8,893	9,159	5,766	19	94	86,409
Harvesting—									
Grain and seed headers, strippers and harvesters	19,052	13,963	7,207	12,393	11,398	703	..	27	64,743
Mowers—									
Power-driven	n.a.	n.a.	8,061	n.a.	7,343	5,132	47	n.a.	n.a.
Ground-driven			3,406		n.a.	994	8		
Hay rakes—									
Side delivery	n.a.	n.a.	4,080	n.a.	n.a.	2,386	25	n.a.	n.a.
Buck			2,805			1,022	n.a.		
Dump			5,473			971	n.a.		
Pick-up balers	9,899	11,972	2,563	4,609	3,461	1,661	17	47	34,229
Potato diggers	n.a.	n.a.	1,137	n.a.	n.a.	950	..	n.a.	n.a.
Forage harvesters	2,618	1,625	1,143	764	494	269	12	14	6,939
Peanut pickers	n.a.	..	355	..	..	..	16	..	n.a.
Corn pickers	n.a.	n.a.	949	..	..	..	..	..	n.a.
Other—									
Shearing machines (number of stands)	70,931	41,689	19,139	29,291	22,486	4,652	16	292	188,496
Milking machines (number of units)	41,796	105,003	42,199	18,833	9,780	15,894	26	94	233,625
Tractors—									
Wheel	75,803	73,668	57,713	30,984	28,706	10,856	225	194	278,149
Crawler	5,191	2,493	7,277	3,014	3,606	1,091	66	6	22,744
Hammer mills	n.a.	n.a.	7,408	n.a.	n.a.	512	..	21	n.a.

(*a*) Incomplete.

FARM MACHINERY ON RURAL HOLDINGS: AUSTRALIA 31 MARCH 1962 TO 1966

Machinery	31 March—				
	1962	1963	1964	1965	1966
Cultivating(*a*)—					
Mouldboard ploughs	n.a.	n.a.	102,228	n.a.	n.a.
Disc implements (including disc ploughs, disc cultivators, disc tillers and disc harrows)			229,818		
Tyne implements—					
Chisel ploughs, scarifiers, cultivators and rippers			175,928		
Tyne harrows (number of leaves)			511,346		
Rotary hoes and rotary tillers—					
Self-contained power unit	*b* 38,868	(*b*) 38,896	(*c*) 37,561	(*c*) 40,195	27,863
Tractor-drawn					19,604
Seeding and planting—					
Grain drills—					
Combine type	84,743	116,116	117,271	90,008	90,866
Other types	29,191			30,537	30,401
Maize and cotton planters	(*d*) 16,050	(*d*) 15,509	(*d*) 14,635	15,220	14,523
Fertiliser distributors and broadcasters	82,820	83,499	84,320	86,653	86,409
Harvesting—					
Grain and seed headers, strippers and harvesters	64,891	65,628	64,697	65,568	64,743
Mowers(*a*)—					
Power-driven	71,585	n.a.	n.a.	81,410	n.a.
Ground-driven	23,076			17,153	
Hay rakes(*a*)—					
Side delivery	35,777	n.a.	n.a.	42,832	n.a.
Buck	12,347			11,917	
Dump	20,267			16,564	
Pick-up balers	26,647	28,725	30,411	32,275	34,229
Potato diggers(*a*)	6,223	n.a.	n.a.	6,613	n.a.
Forage harvesters	4,073	5,083	5,509	5,674	6,939
Peanut pickers(*a*)	255	n.a.	n.a.	315	n.a.
Corn pickers(*a*)	1,264	n.a.	n.a.	1,246	n.a.
Other—					
Shearing machines (number of stands)	177,579	178,805	180,370	186,393	188,496
Milking machines (number of units)	228,228	229,270	229,042	231,389	233,625
Tractors—					
Wheel	264,069	249,783	283,748	295,502	278,149
Crawler		21,277			22,744
Hammer mills(*a*)	17,508	n.a.	n.a.	22,128	n.a.

(*a*) Details for all States are collected at triennial intervals only. (*b*) Rotary hoes, all types. (*c*) Incomplete; excludes tractor-drawn rotary hoes and rotary tillers in Queensland. (*d*) Incomplete; particulars for Victoria not available.

The soils of Australia

Year Book No. 52 contains an article (pages 873–9) on the soils of Australia which deals with the following matters: nature and development of Australian soils, including the agricultural development of soils, and types of Australian soils. A soil map of Australia and illustrations are included on plates 47 to 51 of Year Book No. 52.

Soil improvement and conservation

Fertilisers

In the early days of settlement in Australia the principles of scientific cultivation were little understood. It was common for the land to be cropped continuously until the natural fertility was almost exhausted. More scientific methods have been adopted in recent decades, much of the improvement in this regard being due to the assistance and guidance offered to farmers by various State and Commonwealth departments and authorities.

Fertiliser is generally applied to pastures at the time of sowing, and periodical (usually annual) top-dressings are carried out afterwards to keep the pastures in good condition. The introduction of the modern seed-drill, acting also as a fertiliser distributor, has greatly facilitated the use of artificial manures, and much land formerly regarded as useless for cultivation has now been brought into production. With the rapid increase in the area of sown pastures, particularly since the 1939–45 War, large quantities of artificial fertilisers have been used. In addition, increasing areas of native pastures have been top-dressed. The use of aircraft for the distribution of fertilisers has increased greatly in recent years (*see* page 890) and, in particular, has enabled the fertilising of some areas which would otherwise be inaccessible. In 1965–66 pastures (sown and native) accounted for over 60 per cent of both the total area fertilised and the total quantity of fertiliser used.

The Australian output of prepared fertilisers is derived chiefly from imported rock phosphate. Complete information regarding local production of fertilisers is not available. The number of firms engaged in the manufacture of chemical fertilisers in Australia for the year 1965–66 was 48 made up as follows: New South Wales, 12; Victoria, 6; Queensland, 5; South Australia, 9; Western Australia, 8; and Tasmania, 8. The production of superphosphate in Australia during 1965–66 amounted to 4,265,000 tons.

Information regarding the area treated with artificial fertilisers and the quantity of artificial fertilisers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1965–66 season is given in the following table.

AREA FERTILISED AND QUANTITY OF ARTIFICIAL FERTILISERS USED STATES AND TERRITORIES, 1965-66

State or Territory	Crops			Pastures			Total		
	Area fertilised	Superphosphate used	Other artificial fertilisers used	Area fertilised	Superphosphate used	Other artificial fertilisers used	Area fertilised	Superphosphate used	Other artificial fertilisers used
	'000 acres	tons	tons	'000 acres	tons	tons	'000 acres	tons	tons
New South Wales .	5,494	216,474	49,070	10.604	564,762	9,649	16,098	781.236	58,719
Victoria . .	4,664	204,949	49,843	11,730	743,062	56,539	16,394	948,011	106,382
Queensland . .	883	22,959	178,261	131	10.300	2,967	1.014	33,259	181,228
South Australia .	4,869	252.301	12,831	5,093	295,430	1,400	9,962	547.731	14,231
Western Australia .	8,434	421.071	30,853	10,051	512,758	7,750	18,486	933.829	38,603
Tasmania . .	235	25,200	11,494	1,475	121,330	5,901	1,711	146,530	17,395
Northern Territory.	3	138	92	9	379	63	11	517	155
Australian Capital Territory . .	6	379	54	62	3.336	8	68	3,715	62
Australia .	24,588	1,143.471	332,498	39,156	2,251,357	84,277	63,744	3,394,828	416,775

Particulars of the quantity of artificial fertilisers used in each State and Territory during each of the seasons 1961–62 to 1965–66 are shown in the next table. These details include the quantity used for the top-dressing of pasture lands.

QUANTITY OF ARTIFICIAL FERTILISERS USED: STATES AND TERRITORIES

1961-62 TO 1965-66

(Tons)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 . .	512.201	777,429	126,301	404,233	649,323	112,785	216	4,492	2,586.980
1962–63 . .	576,561	822,488	135,896	430,561	713,067	124,523	226	4,501	2,807,823
1963–64 . .	683,968	880,941	183 326	465,583	720,943	141,507	305	5,213	3,081,786
1964–65 . .	837,959	988,106	198,696	528,827	844,455	142.660	307	5,225	3,546,235
1965–66 . .	839,955	1,054,393	214,487	561,962	972,432	163,925	672	3,777	3,811,603

The chief sources of Australia's supplies of rock phosphate are Nauru, Christmas Island (Indian Ocean) and the Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of artificial fertilisers during the five years ended 1965–66 are shown in the following table.

ARTIFICIAL FERTILISERS: IMPORTS INTO AUSTRALIA, 1961-62 TO 1965-66

Fertiliser	1961–62	1962–63	1963–64	1964–65	1965–66
QUANTITY ('000 cwt)					
Ammonium fertilisers	422	934	2,533	1,565	1,311
Potassium fertilisers . . .	1,496	1,167	1,935	2,180	2,163
Natural phosphate . . .	39,017	33,898	39,788	50,346	55,901
Sodium nitrate	154	144	193	221	153
Other	708	515	337	746	335
Total	**41,797**	**36,658**	**44,786**	**55,058**	**59,862**
VALUE ($'000 f.o.b.)					
Ammonium fertilisers. . . .	862	1,615	3,934	3,132	2,841
Potassium fertilisers . . .	2,554	1,848	2,856	3,441	3,550
Natural phosphate . . .	9,950	9,874	12,486	17,978	21,543
Sodium nitrate	310	336	478	443	393
Other	1,996	1,471	1,092	2,532	1,181
Total	**15,672**	**15,144**	**20,846**	**27,526**	**29,508**

Exports of fertilisers (manufactured locally) amounted to 37,000 cwt valued at $124,000 in 1965–66 compared with 36,000 cwt valued at $149,000 in 1964–65.

Aerial agriculture

During recent years increasing use has been made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures, and for pest and vermin extermination.

For 1956–57 (the first year for which data are available) the total area treated was 1,466.000 acres; in 1965–66 the total was 15,010,000 acres, more than ten times as great. The following table shows details of area treated and materials used for each State for the five years ended 31 March 1966.

AERIAL AGRICULTURE: OPERATIONS, STATES
1961-62 TO 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1961–62 . . . . acres	4,687,232	972,269	231,220	279,541	908,508	84,000	7,162,770
1962–63 . . . . ,,	5,480,999	923,776	539,714	470,476	1,262,346	86,150	8,763,461
1963–64 . . . . ,,	8,083,748	1,512,819	497,518	1,181,349	1,424,479	87,786	12,787,699
1964–65 . . . . ,,	10,771,791	1,896,461	760,505	1,362,881	1,633,312	215,254	16,640,204
1965–66—							
Top-dressing and seeding—							
Area treated with—							
Superphosphate alone ,,	6,922,449	1,574,412	73,160	877,227	494,616	192,540	10,134,404
Seed alone . . . ,,	220,335	15,021	260,196	30,880	..	..	526,432
Superphosphate and seed together . . ,,	6,074	40,200	500	..	167,136	..	213,910
Gypsum . . . . ,,	1,303,855	..	..	..	..	..	1,303,855
Other . . . . ,,	621,147	60	1,376	1,690	3,599	..	627,872
Total area treated, top-dressing, etc.(a) ,,	*7,584,880*	*1,629,693*	*335,232*	*908,107*	*663,606*	*192,540*	*11,314,058*
Materials used—							
Superphosphate . tons	374,487	110,550	5,334	46,392	37,654	13,628	588,045
Seed on—							
Pasture . . . lb	697,121	55,623	371,065	111,480	112,221	..	1,347,510
Other . . . . ,,	43,780	..	31,820	157,500	..	..	233,100
Spraying and dusting—							
Area treated—							
Pasture . . . acres	194,769	101,512	11,455	44,696	124,198	12,120	488,750
Crops . . . . ,,	767,715	600,826	362,217	218,871	962,707	12,266	2,924,602
Other . . . . ,,	13,370	..	35,917	6,700	..	..	55,987
Total area treated, spraying, etc. . ,,	*975,854*	*702,338*	*409,589*	*270,267*	*1,086,905*	*24,386*	*3,469,339*
Grand total, area treated(*a*) . . ,,	8,619,734 (*b*)	2,471,941 (*c*)	772,821 (*d*)(*e*)	1,178,374	1,750,511	216,926	15,010,307 (*f*)

(*a*) Where an area has been treated with a mixture of materials or more than one material, the area treated is included in the line relating to each of the various materials but is counted in the total once only. (*b*) Includes 59,000 acres baited for rabbit destruction, etc. (*c*) Includes 139,910 acres baited for rabbit destruction, etc. (*d*) Includes 28,000 acres baited for rabbit destruction, etc. (*e*) Includes details for the Northern Territory. (*f*) Includes 226,910 acres baited for rabbit destruction, etc.

NOTE. The information contained in this table was collected by the Department of Civil Aviation.

Pasture improvement

An article on pasture improvement, which includes notes on indigenous and introduced species of grasses and which traces the development of pasture research in Australia, appears on pages 1001–2 of Year Book No. 49.

Soil conservation

Year Book No. 49 contains an article (pages 1003–4) on soil conservation which deals with the following matters: land use and soil erosion, agents of erosion, prevention and control, and the activities of various Commonwealth and State authorities which promote and co-ordinate research into the problems of soil erosion and the initiation of preventive measures.

AGRICULTURAL PRODUCTION

In general, statistics in this chapter relating to agricultural production are derived from 'census' returns supplied by approximately 250,000 farmers who utilise one acre or more of land for agricultural or pastoral purposes. The latest figures available are those for the year 1965–66. The returns are collected on a substantially uniform basis in all States at 31 March each year, and relate mainly to crops sown in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources these are used in conjunction with the 'census' returns. The statistics published in this section are therefore shown in 'agricultural' years. For most purposes there will be little error involved in considering them as applying to years ended 30 June.

For more detailed information on period covered and details of the weights and measures used in recording production of agricultural commodities *see* introductory notes to the bulletin *Rural Industries*.

Progress, assistance and control

Early development

The coastal districts of southern Australia are characterised to a large degree by leached soils of low fertility, with limited areas suitable for intensive crop cultivation. This, combined with an unfamiliar climate and problems associated with the clearance of scrub-land, severely checked early attempts to establish crops. A brief reference to these attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Year Book. (*See* No. 22, page 670.)

In an *Account of Live Stock and Ground under Crop in New South Wales, 19th August*, 1797 Governor Hunter gives the acreage of crops as follows: wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres. The following details of crops were collected in 1808: wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres. The bulk of the arable land in this part of the colony was devoted to the extensive grazing of sheep.

The gold discoveries of 1851 (at Bathurst in New South Wales and later at Ballarat and Bendigo in Victoria) had at first a very disturbing effect on agricultural progress. The area of crops declined from 491,000 acres in 1850 to 458,000 acres in 1854, as landowners and rural labourers joined in the various gold rushes. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. There was still a shortage of rural labour, and the increased acreage was due largely to the increasing mechanisation of crop operations.

Progress of cultivation

The following table shows the area of crops in each of the States and Territories of Australia at ten-yearly intervals since 1860–61 and during each of the ten seasons 1956–57 to 1965–66. Plate 43 in this chapter shows the area of crops in Australia from 1900–01 onward (page 894).

AREA OF CROPS: STATES AND TERRITORIES, 1860-61 TO 1965-66

('000 acres)

Year	N.S.W.	Vic	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1860–61 . .	246	387	4	359	25	153	..	..	1,174
1870–71 . .	385	693	52	802	55	157	..	..	2,144
1880–81 . .	606	1,549	114	2,087	64	141	..	..	4,561
1890–91 . .	853	2,032	225	2,093	70	157	..	..	5,430
1900–01 . .	2,447	3,114	458	2,370	201	224	..	..	8,814
1910–11 . .	3,386	3,952	667	2,747	855	287	..	..	11,894
1920–21 . .	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930–31 . .	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940–41 . .	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1950–51 . .	4,761	4,537	2,077	3,812	4,650	290	n.a.	6	20,133
1956–57 . .	3,789	3,904	2,469	4,273	5,233	288	1	5	19,962
1957–58 . .	5,000	4,431	2,600	4,233	5,615	292	1	5	22,177
1958–59 . .	6,820	5,040	2,852	4,436	6,135	339	1	8	25,631
1959–60 . .	7,137	4,817	2,926	4,400	6,495	322	1	7	26,105
1960–61 . .	8,044	5,838	3,057	5,399	6,871	357	2	8	29,576
1961–62 . .	8,288	5,626	3,216	5,024	7,112	364	2	7	29,639
1962–63 . .	8,903	6,318	3,490	5,495	7,482	395	2	7	32,092
1963–64 . .	8,997	6,102	3,665	5,975	6,915	380	3	8	32,045
1964–65 . .	10,334	6,477	3,967	5,965	7,505	404	4	9	34,665
1965–66 . .	9,052	6,219	4,119	6,030	8,680	386	4	8	34,498

The progress of agriculture was practically uninterrupted from 1860–61 to 1915–16, when, as the result of a special effort to increase wheat production during the 1914–18 War, 18.5 million acres were cultivated in Australia. There was a temporary setback in later war years, but after the end of the war the area continued to expand and increased steadily to the record area of 25.2 million acres in 1930–31. In the following years the slump in wheat prices seriously depressed incomes in the agricultural industry, and the area of crops decreased to just under 20 million acres in 1935–36.

By 1938–39 the industry was recovering from the depression, and the total area under cultivation reached the high level of 23.5 million acres. Thereafter, as a result of war-time manpower shortages and shipping difficulties, the area declined to less than 16 million acres in 1943–44. After that year production gradually increased again until, in 1947–48, 22.5 million acres were sown to crops. This upward trend was reversed after 1948–49, largely because many primary producers transferred from wheat to wool production as a result of the high prices of wool. After 1951–52, however, when the area sown was 20.0 million acres, the area under crops increased steadily except for 1956–57, when excessively wet conditions caused reductions in the area sown to wheat. Subsequent to that year the area of all crops has generally shown an upward trend and, in 1965–66, 34.5 million acres were sown, which was 0.2 million acres below the record area sown in 1964–65. As the area under wheat in Australia constitutes a large proportion of the total area cropped (51 per cent during the five years ended 1965–66), fluctuations in the former have been largely responsible for year to year variation in total crop area.

The Australian Agricultural Council

The influence of governmental and semi-governmental authorities on Australian rural industry is most apparent in the fields of guaranteed prices, subsidies and controlled marketing. Many of these aspects of intervention at the national level take place indirectly through the Australian Agricultural Council. This is a permanent organisation which was formed following a conference of Commonwealth and State Ministers on agricultural and marketing matters, held at Canberra in December 1934. The Council consists of the Commonwealth Ministers for Primary Industry and Territories and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are: the promotion of the welfare and development of agricultural industries generally; the exchange of information on agricultural production and marketing; the improvement of the quality of agricultural products and the maintenance of high grade standards; to ensure, as far as possible, balance between production and available markets; and organised marketing.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

The Standing Committee on Agriculture comprises the permanent heads of the State Departments of Agriculture, the Secretary, Department of Primary Industry, and a representative each from the Commonwealth Departments of the Treasury, Health, Trade and Industry, and Territories, and from the Commonwealth Scientific and Industrial Research Organization.

Financial assistance to primary producers

Financial assistance to primary producers by the Commonwealth Government may be provided in a number of ways. Examples of these follow.

Bounties. A bounty to producers, not exceeding $4,000,000 in any one year, is currently paid on raw cotton produced and sold for use in Australia. This arrangement is due for review in 1968.

A bounty of $27,000,000 paid annually on the production of butter, cheese and related butterfat products and an export bounty on processed milk products of a maximum of $800,000 annually are both continued in the fifth Five Year Dairy Industry Stabilization Plan which commenced 1 July 1967.

Commitments to industry-financed stabilisation schemes. In schemes of this nature the Commonwealth generally accepts a defined contingent liability to contribute to Government approved stabilisation funds if falling prices, or rising costs, or both, lead to a situation where growers' contributions prove inadequate. The Dried Vine Fruits Stabilization Fund and the Wheat Prices Stabilization Fund are examples of this.

Other financial assistance

The Commonwealth Government also pays for cattle tick control, flood, drought and bush fire relief, fisheries research, and farm mechanisation research.

Over recent years legislative research schemes financed by matching contributions from the Commonwealth, and industry or States, or both, have been initiated in regard to tobacco, wool, wheat, dairy produce, meat, eggs, wine, and honey. Non-legislative schemes, on a similar financial basis, have been operative in relation to Australian plague locusts, pest management in pome fruit orchards, grape crop forecasting, honey research, barley research, banana research, and fruit fly research.

Agricultural training and research

Agricultural colleges have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agriculture and livestock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural research and experimentation. To a lesser degree, they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying, etc., according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are concerned primarily with agricultural research and experimentation, each farm concentrating on problems specific to the region in which it is located. The results of the work undertaken are passed on to farmers at field days which are held at regular intervals, through publication in various agricultural or scientific journals, and through the agricultural extension services of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations in many parts of Australia, and sometimes undertakes research jointly with the appropriate State authorities. It also has regional laboratories in several States, conducting research into agronomic and livestock problems as they occur in each particular region (*see also* the chapter Education, Cultural Activities and Research). The State Departments of Agriculture study problems of particular significance within their own boundaries. In addition, the universities carry out valuable work in their laboratories and on their experimental farms.

Extension services

Extension services operate in each State and in the Northern Territory, Australian Capital Territory and the Territory of Papua-New Guinea. Commonwealth funds have been provided to assist the States in their extension activities, through the Commonwealth Extension Services Grant and the Commonwealth Dairy Industry Extension Grant. These grants totalled $1.4 million in 1965–66. In 1966 the Commonwealth determined that the grants would be amalgamated and enlarged, undertaking to make available in 1966–67 and each of the next four years additional funds rising to at least $5.4 million per annum. The amount provided in 1966–67 was $2.9 million. The scope of the grant was widened to enable support to be given to extension, regional (adaptive) research, information services, economic advisory work, etc., and to training for these purposes.

Distribution, production and value of crops

Distribution of crops

The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the Commonwealth. Generally, cereal crops (excluding rice and sorghum) are grown in all States over wide areas, while industrial crops are confined to specific locations in a few States. A graph showing the area sown to principal crops for the years 1900–01 to 1965–66 appears on plate 43, over the page.

AREA OF CROPS

AUSTRALIA, 1900-01 TO 1965-66

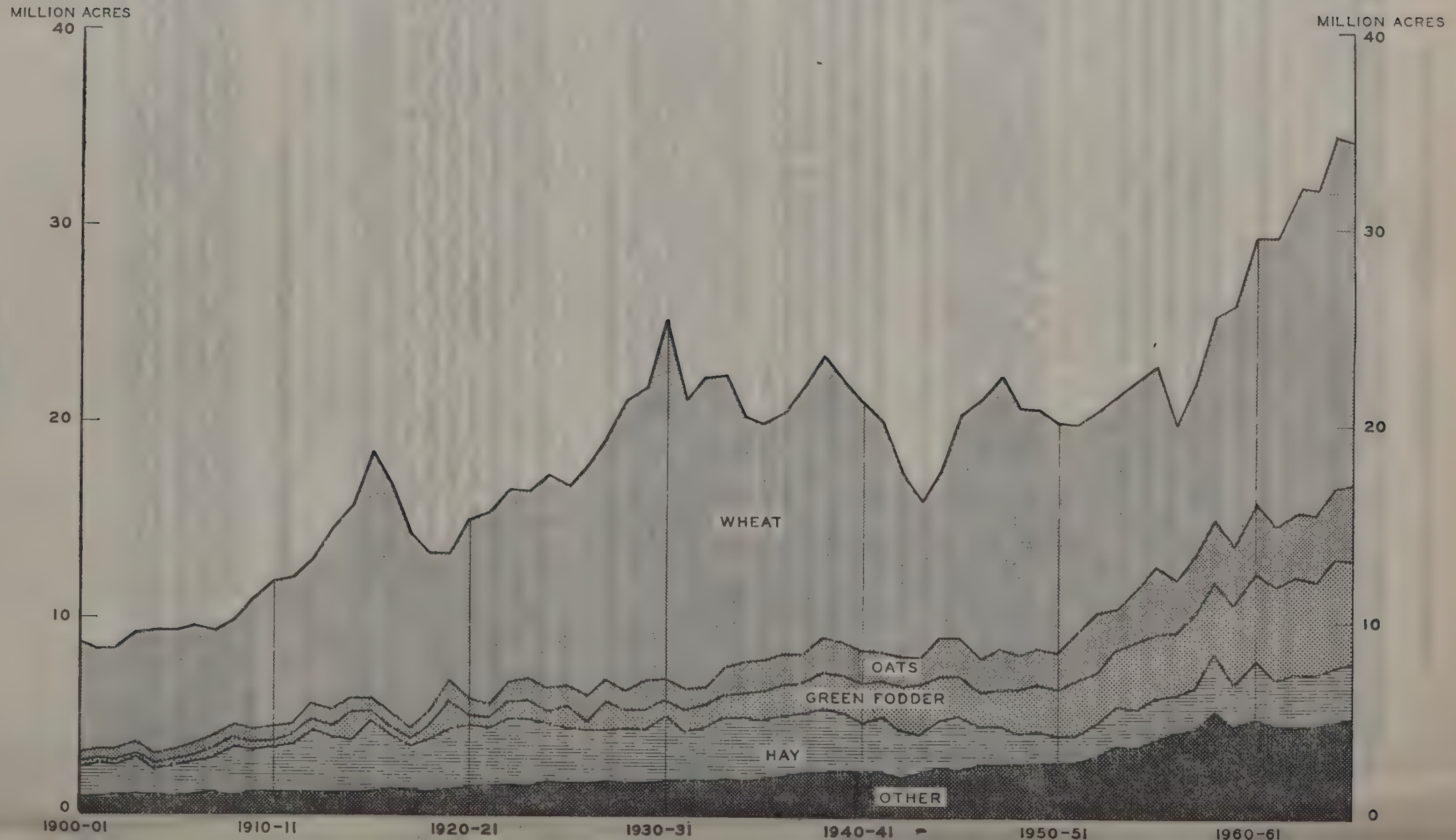


PLATE 43

AREA OF CROPS: STATES AND TERRITORIES, 1965-66

(Acres)

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for grain—									
Barley—									
2-row	136,463	181,175	301,591	1,056,115	71,847	19,283	..	..	1,766,474
6-row	99,631	11,103	36,596	42,023	341,230	624	..	..	531,207
Maize—Hybrid	(a) 38,027	1,497	(a) 124,862	..	(b)	..	..	..	(c) 164,386
Other	(a) 3,973	186	(a) 28,219	..	1	..	(d)	..	(c) 32,379
Oats	1,032,659	965,702	44,983	454,562	1,240,104	28,290	..	1,458	3,767,758
Panicum, millet and setaria	2,551	3,302	56,416	..	..	..	(d)	..	(c) 62,270
Rice	64,398	..	..	..	(d)	..	(e)	..	(c) 64,398
Rye	4,596	13,409	322	36,395	10,052	34	..	..	64,808
Sorghum	(a) 99,576	..	(a) 332,768	..	..	..	1,093	..	433,437
Wheat	4,576,686	3,074,103	953,756	2,744,863	6,149,727	14,107	..	1,342	17,514,584
Hay	733,195	1,150,345	154,581	298,614	290,797	147,828	1,116	3,737	2,780,213
Green fodder	1,951,764	525,511	1,143,463	1,209,933	413,916	78,233	673	840	5,324,333
Other stock fodder	8,681	27,672	2,960	30,844	4,385	32,098	n.a.	..	(c) 106,640
Grass seed—									
Lucerne	7,497	(f)	546	24,018	177	..	654	..	(c) 32,892
Clover	12,883	6,939	3	4,984	80,890	728	..	..	106,427
Other	8,319	19,779	35,944	6,750	14,680	(g) 2,382	229	..	(c) 88,083
Industrial crops—									
Broom millet	1,668	158	237	..	12	..	..	..	2,075
Canary seed	..	(d)	13,440	..	..	..	..	..	(c) 13,440
Cotton	33,176	(d)	(a) 13,455	..	8,307	..	..	..	(c) 54,938
Flax—									
For linseed	3,658	7,370	12,266	1,196	97	..	..	..	24,587
Hops	..	678	..	..	(d)	(h) 1,569	..	..	(c) 2,247
Peanuts	394	..	57,298	..	..	..	16	..	57,708
Sugar cane—									
For crushing	15,824	..	487,375	..	(d)	..	..	..	(c) 503,199
Stand-over and cut for plants	24,018	..	119,604	..	..	..	..	..	143,622
Safflower	2,539	935	56,727	(d)	75	..	..	..	(c) 60,276
Sunflower	(d)	(d)	10,653	..	..	..	..	..	(c) 10,653
Tobacco	1,742	9,230	12,509	..	..	..	..	..	23,481
Other	..	920	172	..	..	253	..	..	1,345
Vegetables for human consumption—									
Onions	999	2,955	2,748	1,148	331	69	(i)	(i)	(c) 8,250
Potatoes	21,913	34,333	16,080	5,748	6,229	11,993	1	14	96,311
Other	43,996	54,319	44,074	9,668	8,528	23,970	143	119	184,818
Vineyards—									
Bearing	18,444	44,788	2,920	53,534	7,531	..	..	..	127,217
Not bearing	2,848	3,829	348	5,196	684	..	..	..	12,905
Fruit—									
Bearing	76,814	57,351	33,250	29,504	19,690	19,065	58	34	235,766
Not bearing	20,398	17,650	14,465	14,482	7,025	3,361	52	8	77,441
Nurseries and cut flowers	989	2,487	456	238	284	105	(d)	9	(c) 4,568
All other crops	2,086	1,219	4,116	281	3,329	1,865	27	23	12,946
Total area	9,052,405	6,218,946	4,119,203	6,030,096	8,679,928	385,855	4,062	7,584	34,498,079

(a) Sown 1964–65. (b) Included in Other maize. (c) Incomplete: *see* individual States. (d) Not available for publication. Included in All other crops. (e) Not available for publication. Excluded from totals. (f) Not available separately. Included in All other crops. (g) Excludes area sown simultaneously to oats. (h) Includes 78 acres not bearing. (i) Not available for publication. Included in Other vegetables.

RELATIVE AREAS OF CROPS: STATES AND TERRITORIES, 1965-66

(Per cent)

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Wheat (grain)	50.6	49.4	23.2	45.5	70.8	3.7	..	17.7	50.8
Green fodder	21.6	8.5	27.8	20.1	4.8	20.3	16.6	11.1	15.4
Oats (grain)	11.4	15.5	1.1	7.5	14.3	7.3	..	19.2	10.9
Hay	8.1	18.5	3.8	5.0	3.4	38.3	27.5	49.3	8.1
Barley (grain)	2.6	3.1	8.2	18.2	4.8	5.2	..	..	6.7
Sugar cane for crushing	0.2	..	11.8	..	..	..	..	..	1.5
Sorghum	1.1	..	8.1	..	..	..	26.9	..	1.3
Fruit	1.1	1.2	1.2	0.7	0.3	5.8	2.7	0.6	0.9
Maize (grain)	0.5	..	3.7	..	..	..	..	..	0.6
Vineyards	0.2	0.8	0.1	1.0	0.1	..	..	..	0.4
Potatoes	0.2	0.6	0.4	0.1	0.1	3.1	..	0.2	0.3
All other	2.5	2.4	10.8	1.9	1.5	16.3	26.3	2.0	3.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

AREA OF CROPS: AUSTRALIA, 1961-62 TO 1965-66

('000 acres)

Crop	1961–62	1962–63	1963–64	1964–65	1965–66
Cereals for grain—					
Barley—					
2-row	2,383	1,553	1,621	1,655	1,766
6-row		474	392	409	531
Maize—					
Hybrid	211	161	172	176	164
Other		48	43	36	32
Oats	3,097	3,292	3,392	3,497	3,768
Rice	50	55	59	62	64
Sorghum	363	391	366	346	433
Wheat	14,723	16,469	16,474	17,919	17,515
Hay	2,274	2,720	2,602	2,793	2,780
Green fodder	4,702	4,952	4,877	5,614	5,324
Grass seed	138	162	219	258	227
Industrial crops—					
Cotton	29	38	41	38	55
Flax for linseed	62	97	118	134	25
Hops	2	2	2	2	2
Peanuts	34	36	45	46	58
Sugar cane	499	506	539	628	647
Safflower	9	6	19	48	60
Tobacco	27	29	29	26	23
Vegetables for human consumption—					
Onions	9	11	9	10	8
Potatoes	94	114	102	88	96
Other	163	163	166	168	185
Vineyards	133	134	136	139	140
Fruit	294	305	310	311	313
All other crops	343	374	312	262	282
Total	**29,639**	**32,092**	**32,045**	**34,665**	**34,498**

Production and yield per acre of crops

PRODUCTION OF CROPS: STATES AND TERRITORIES, 1965–66

Crop		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for grain—										
Barley—										
2-row . .	'000 bus	2,201	3,038	8,145	17,927	1,263	661	..	..	33,235
6-row . .	,,	1,601	179	992	587	5,218	23	..	..	8,600
Maize—										
Hybrid . .	,,	(a)1,482	94	(a)2,678	..	(b)	..	..	..	(c) 4,253
Other . .	,,	(a) 125	8	(a) 531	..	..	..	(d)	..	(c) 664
Oats . .	,,	12,607	17,784	735	5,622	23,279	677	..	37	60.739
Panicum, millet and setaria .	,,	9	63	726	..	..	..	(d)	..	(c) 799
Rice . .	,,	9,540	..	..	..	(d)	..	(d)	..	(c) 9,540
Rye . .	,,	60	66	4	186	75	..	..	..	392
Sorghum . .	,,	(a) 605	..	(a)6,533	..	..	..	12	..	7,149
Wheat . .	,,	39,117	60,591	17,429	39,976	102,156	368	..	28	259,666
Hay . .	'000 tons	978	1,873	282	368	414	257	2	5	4,179
Grass seed—										
Lucerne . .	cwt	7,909	n.a.	312	28,030	147	..	691	..	(c) 37,089
Clover . .	,,	21,567	9,761	3	11,245	177,545	454	..	..	220,575
Other . .	,,	10,114	27,195	22,392	9,844	24,680	4,862	64	..	99,151
Industrial crops—										
Broom millet—										
Fibre . .	cwt	10,394	740	682	..	80	..	..	..	11,896
Grain . .	bushels	17,391	1,105	n.a.	..	..	..	..	..	(c) 18,496
Canary seed .	'000 bus	..	(d)	142	..	..	..	..	..	(c) 142
Cotton, unginned	'000 lb	103,280	(d)	a 10,138	..	20,431	..	..	..	(c) 133,850
Flax—										
Linseed. .	tons	213	2,538	2,895	403	15	..	..	..	6,064
Hops (dry weight)	cwt	..	9,994	..	..	(d)	27,400	..	..	(c) 37,394
Peanuts . .	,,	4,468	..	543,735	..	..	..	76	..	548,279
Sugar cane for crushing .	'000 tons	609	..	13,546	..	(d)	..	..	..	(c) 14,155
Safflower .	bushels	13,941	11,738	522,810	(d)	1,070	..	..	..	(c) 549,559
Sunflower .	cwt	(d)	(d)	48,580	..	..	..	..	..	(c) 48,580
Tobacco, dried leaf . .	'000 lb	1,698	11,083	14,580	..	..	..	..	..	27,361
Vegetables for human consumption—										
Onions . .	tons	8,764	17,115	17,728	10,069	3,948	500	(d)	(d)	(c) 58,124
Potatoes . .	,,	104,623	240,786	97,744	56,471	62,865	76,400	4	83	638,976
Vineyards—										
Grapes—										
For drying .	,,	47,716	256,353	..	52,737	5,688	..	..	..	362,494
,, table .	,,	7,699	9,706	4,602	1,210	2,310	..	..	..	25,527
,, wine .	,,	41,839	16,961	208	129,855	5,232	..	..	..	194,095

(*a*) Harvested from crop sown in 1964–65. (*b*) Included in Other maize. (*c*) Incomplete; *see* individual States. (*d*) Not available for publication.

PRODUCTION OF PRINCIPAL CROPS: AUSTRALIA, 1961–62 TO 1965–66

Crop		1961–62	1962–63	1963–64	1964–65	1965–66
Cereals for grain—						
Barley—						
2-row	'000 bus	41,504	31,370	36,464	41,775	33,235
6-row	,,		8,209	6,931	7,540	8,600
Maize—Hybrid	,,	7,307	6,064	5,592	5,896	4,253
Other	,,		1,393	1,130	983	664
Oats	,,	55,130	68,809	68,234	70,043	60,739
Rice	,,	7,045	7,129	7,455	8,030	9,540
Sorghum	,,	9,361	10,252	7,889	7,164	7,149
Wheat	,,	247,178	306,912	327,912	368,789	259,666
Hay	'000 tons	3,693	4,717	4,269	4,963	4,179
Grass seed	cwt	187,810	232,669	333,286	411,919	356,815
Industrial crops—						
Cotton, unginned	'000 lb	10,948	15,762	18,223	63,009	133,850
Flax for linseed	tons	12,589	25,717	29,516	46,600	6,064
Hops (dry weight)	cwt	32,936	33,629	19,858	27,893	37,394
Peanuts	,,	299,613	319,402	460,726	207,115	548,279
Sugar cane for crushing	'000 tons	9,577	12,736	12,118	15,070	14,155
Safflower	'000 bus	86	90	303	697	550
Tobacco (dried leaf)	'000 lb	22,578	27,148	34,342	25,111	27,361
Vegetables for human consumption—						
Onions	'000 tons	58	68	59	70	58
Potatoes	,,	526	667	562	508	639
Vineyards—						
Grapes	,,	628	471	646	680	582
Wine made(*a*)	'000 gals	41,736	29,893	37,536	38,520	33,956
Dried vine fruits	'000 tons	96	71	104	108	91

(*a*) Net factory and farm production of beverage and distillation wine. This excludes the liquid gallonage of spirits added in wine fortifying.

YIELD PER ACRE OF PRINCIPAL CROPS: AUSTRALIA 1961–62 TO 1965–66

Crop		1961–62	1962–63	1963–64	1964–65	1965–66
Cereals for grain—						
Barley—						
2-row	bushels	17.4	20.2	22.5	25.2	18.8
6-row	,,		17.3	17.7	18.4	16.2
Maize—Hybrid	,,	34.7	37.7	32.6	33.4	25.9
Other	,,		28.7	26.2	27.4	20.5
Oats	,,	17.8	20.9	20.1	20.0	16.1
Rice	,,	140.4	129.8	125.5	130.3	148.1
Sorghum	,,	25.8	26.2	21.6	20.7	16.5
Wheat	,,	16.8	18.6	19.9	20.6	14.8
Hay	tons	1.62	1.73	1.64	1.78	1.50
Industrial crops—						
Cotton, unginned	lb	380	418	445	1,662	2,436
Flax for linseed	tons	0.20	0.26	0.25	0.35	0.25
Hops (dry weight)(*a*)	cwt	17.1	16.8	9.7	13.2	17.2
Peanuts	,,	8.81	8.89	10.25	4.51	9.50
Sugar cane for crushing(*a*)	tons	24.8	31.7	29.0	32.0	28.1
Safflower	bushels	9.6	15.8	15.6	14.7	9.1
Tobacco (dried leaf)	lb	848	924	1,183	954	1,165
Vegetables for human consumption—						
Onions	tons	6.20	6.34	6.43	7.18	7.04
Potatoes	,,	5.57	5.86	5.51	5.78	6.63
Vineyards—						
Grapes(*a*)	,,	5.14	3.86	5.21	5.42	4.56

(*a*) Per acre of productive crops.

Gross value of agricultural production

Further reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used may be found in the chapter Miscellaneous.

GROSS VALUE(*a*) OF AGRICULTURAL PRODUCTION: AUSTRALIA 1961–62 TO 1965–66

($'000)

Crop	1961–62	1962–63	1963–64	1964–65	1965–66
Cereals for grain—					
Barley	43,866	42,656	47,484	55,620	47,932
Maize	10,570	9,524	10,364	9,999	9,517
Oats	40,002	51,258	49,666	51,449	53,323
Rice	7,664	7,676	7,912	8,529	10,224
Wheat	372,344	449,064	467,432	517,702	384,853
Hay	75,492	92,958	87,462	99,209	107,755
Green fodder	17,486	19,224	20,990	25,011	28,380
Industrial crops—					
Cotton, unginned	1,294	1,876	2,212	7,685	14,323
Hops	2,484	2,570	1,534	2,372	3,020
Sugar cane	99,216	131,038	162,880	133,372	121,865
Tobacco (dried leaf)	24,244	30,022	33,408	24,608	30,399
Vegetables for human consumption—					
Onions	5,094	3,628	4,096	5,340	6,667
Potatoes	41,394	27,960	33,226	60,713	43,751
Other vegetables for human consumption	57,486	57,552	66,514	68,335	75,566
Grapes	39,630	32,048	46,416	50,385	43,516
Fruit and nuts	126,726	128,860	135,133	146,242	151,877
All other crops	43,352	48,712	51,758	53,413	51,603
Total	**1,008,344**	**1,136,626**	**1,228,487**	**1,319,984**	**1,184,571**

(*a*) Includes amounts paid as bounty, relief, etc.

Values of agricultural production in the various States and Territories are shown for 1965–66 in the following table. In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant.

GROSS, LOCAL AND NET VALUES OF AGRICULTURAL PRODUCTION STATES AND TERRITORIES, 1965–66

($'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Local value of production	Value of materials used in process of production	Net value of production (*a*)
New South Wales	245,734	44,083	201,651	(*b*) 26,261	175,390
Victoria	262,852	37,139	225,713	23,039	202,674
Queensland	274,221	32,015	242,207	43,542	198,665
South Australia	144,017	15,824	128,193	22,536	105,657
Western Australia	216,711	29,753	186,958	31,777	155,181
Tasmania	40,523	11,179	29,344	6,274	23,070
Northern Territory	225	n.a.	225	n.a.	225
Australian Capital Territory	288	23	265	12	253
Australia	**1,184,571**	**170,016**	**1,014,556**	**153,441**	**861,115**

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowance has been made for costs of power, power kerosene, petrol and other oils.

NET VALUE OF AGRICULTURAL PRODUCTION(*a*) STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Net value ($'000) —									
1961–62 . .	187,716	176,490	150,152	90,934	102,650	24,690	150	224	733,006
1962–63 . .	226,072	193,972	185,728	93,358	108,506	22,312	168	298	830,414
1963–64 . .	245,906	218,136	222,370	125,180	79,622	25,729	169	276	917,388
1964–65 . .	293,883	232,775	193,673	134,239	92,800	27,223	222	349	975,164
1965–66 . .	175,390	202,674	198,665	105,657	155,181	23,070	225	253	861,115
Per head of population ($)—									
1961–62 . .	47.52	59.70	98.11	93.10	137.71	69.91	5.44	3.57	69.13
1962–63 . .	56.27	64.42	119.56	93.76	141.55	62.30	5.81	4.28	76.88
1963–64 . .	60.35	71.01	140.37	122.69	101.11	70.95	5.35	3.59	83.32
1964–65 . .	71.03	74.26	119.90	128.03	115.23	74.34	6.53	4.14	86.87
1965–66 . .	41.72	63.50	120.59	98.03	188.10	62.45	6.21	2.73	75.24

(*a*) No deduction has been made for depreciation and maintenance.

Indexes of quantum and price of agricultural production

Indexes of quantum and price of agricultural production are shown in the following table. The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been revalued at the unit gross value for the period 1936–37 to 1938–39. The price indexes relate to average 'prices' of farm products realised at the principal markets of Australia. Average quantities of each product marketed in the period, 1946–47 to 1950–51 have been used as fixed weights. Further details on weights used, etc. are to be found in the chapter Miscellaneous.

INDEXES OF QUANTUM(*a*) AND PRICE OF AGRICULTURAL PRODUCTION, 1961-62 TO 1965-66

(*Base: Average three years ended June*, 1939 = 100)

	1961–62	1962–63	1963–64	1964–65	1965–66
Quantum produced—					
Wheat . . .	150	186	199	224	158
Other crops . . .	171	194	194	214	200
Total, all crops . .	*163*	*191*	*196*	*218*	*184*
Per head of population	*106*	*122*	*122*	*133*	*110*
Price—					
Wheat . . .	380	366	356	351	372
Other crops . .	323	309	348	351	340
Total, all crops . .	*348*	*334*	*351*	*351*	*354*

(*a*) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (1936–37 to 1938–39).

Wheat

Wheat is grown on a large scale in all States except Tasmania, and is the most important crop in Australia in terms of area, production and exports. The present limits of the wheat belt have been established after considerable fluctuation over the last four decades. In January 1934 a Royal Commission was appointed to inquire into and report upon the economic condition of the growing, handling and marketing of wheat, and the manufacturing, distributing and selling of flour and bread. The Report of this Royal Commission provides an authoritative description of all aspects of the industry up to that time.

Wheat marketing and research

Two of the aspects of governmental and semi-governmental assistance and control which have contributed to the development of the industry are the organisation of overseas marketing and of research.

As a large proportion of the Australian wheat crop is normally exported, the marketing of wheat plays an important part in the industry. The Australian Wheat Board was constituted in September 1939, under National Security (Wheat Acquisition) Regulations, to purchase, sell, or dispose of wheat or wheat products, and to manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations. Details of the operations of the Australian Wheat Board and the Wheat Stabilization Board in licensing wheat grown during the seasons 1941–42 to 1948–49 will be found in Year Book No. 38, pages 940–1, and a detailed survey of legislation relating to stabilisation of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Year Book No. 37, pages 1295–9.

The Wheat Stabilization Board ceased to function on 31 December 1948, and under the *Wheat Industry Stabilization Act* 1948 the Australian Wheat Board was reconstituted for five years to administer the first stabilisation plan and was given powers similar to those held under the National Security Regulations. The new Board commenced to function on 18 December 1948. The Board has been continued in existence by the *Wheat Industry Stabilization Acts* 1954, 1958 and 1963 for the purpose of administering the second, third and fourth five-year stabilisation plans. Details of the more recent plans were published in Year Book No. 40, pages 841 and 842 (1947–48 to 1952–53 Plan), No. 44, page 861 (1953–54 to 1957–58), and No. 48, pages 903 and 904 (1958–59 to 1962–63).

Fourth Post-war Wheat Industry Stabilisation Plan. Following negotiations during 1962 and 1963, the fourth post-war Wheat Industry Stabilisation Plan was enacted by the Commonwealth and States towards the end of 1963. The new plan operates on very much the same lines as the previous ones. However, there are some important changes in detail in the main features of the plan which are set out below.

The plan operates for five years. It commenced with the 1963–64 wheat crop and will end with the marketing of the 1967–68 crop.

The *Wheat Export Charge Act* 1963 repealed the *Wheat Export Charge Act* 1958 and provided for an export charge on wheat and wheat products for the seasons 1963–64 to 1967–68 inclusive. The charge which may be levied is the excess of the export price over the cost of production or 15 cents a bushel, whichever is the less. The Commonwealth has guaranteed a return to growers applying to a maximum of 150 million bushels of wheat exported from each crop during the period of the plan. The guaranteed return is based on the findings of a survey of the economic structure of the wheat industry conducted by the Bureau of Agricultural Economics. It is subject to adjustment in each year of the plan in accordance with the movements in costs based on a cost index established from the survey. The guaranteed returns per bushel since the inception of the latest plan were: 1963–64, $1.442; 1964–65, $1.458; 1965–66, $1.517. For the 1966–67 season the guaranteed return has been fixed at $1.550 per bushel. The ceiling of the stabilisation fund is established at $60 million; any excess beyond this figure is returned to growers on the 'first-in, first-out' principle. Collections from the wheat export charge are paid into the Wheat Prices Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price, for any season, to the guaranteed price. When the average export realisations fall below the guaranteed return the deficiency is made up first by drawing upon the stabilisation fund in respect of up to 150 million bushels of wheat from each crop. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund. As the return from exports has been below the guaranteed price, there have been no collections of the wheat export charge since the 1956–57 (No. 20) pool when $3,178,000 was collected. In fact, growers' moneys in the Fund were exhausted with the closure of the 1959–60 Pool and since then the Commonwealth has been obliged to meet its commitment in respect of the export guarantee. Up to the closure of the 1964–65 Pool this has involved an amount totalling $81 million.

The Australian Wheat Board is retained as the sole constituted authority for the marketing of wheat within Australia and for the marketing of wheat and flour for export from Australia for the period of the plan.

The home consumption base price for 1963–64, the first year of the new plan, was established at $1.442 a bushel, bulk basis, f.o.r. ports plus 1.66 cents a bushel loading to cover the cost of transporting wheat to Tasmania. (Provision is made for a loading on the price of all wheat sold for consumption in Australia to the extent necessary to cover the cost of transporting wheat from the mainland to Tasmania in each season of the plan.) There is provision in the plan for annual adjustments in the following years in accordance with the guaranteed price as outlined above. The home consumption price for the 1965–66 season was $1.533 a bushel and is $1.565 a bushel for the 1966–67 season, including the freight to Tasmania loading of 1.5 cents a bushel.

A premium is paid from export realisations on wheat grown in Western Australia and exported from that State, in recognition of the natural freight advantage enjoyed by Western Australia owing to its proximity to the principal overseas markets for wheat. The premium is the amount of the actual freight advantage enjoyed by Western Australia up to a maximum of 2.5 cents a bushel.

F.A.Q. standard of wheat

Sales and shipments of grain in bulk overseas are generally made on a 'fair average quality' (f.a.q.) basis. Samples of wheat are obtained each year from the different wheat districts and mixed to give a representative sample of the whole crop in each State. From this representative sample the f.a.q. weight for each State is determined by the use of the Schopper 1-litre scale chondrometer. This standard is used as a basis for sales of each crop and it varies from year to year and from State to State. F.a.q. is an Australian term, and the method of selling differs from that of other countries, which sell according to sample, or (as in Canada) according to grades which are fixed and do not vary from year to year. The f.a.q. method does not, however, take protein quantity and quality into account, and it gives no indication therefore of the baking strength of the resulting flour.

There are two main classifications of Australian wheat in addition to the f.a.q. standard, namely, 'semi-hard' and 'premium-hard'. The former applies to wheat segregated as such in South Australia, and the latter to higher-protein wheat of northern New South Wales and Queensland of a guaranteed minimum protein content. Both wheats sell at a premium above f.a.q. The f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States for the 1965–66 season's crop was as follows: New South Wales, north, none fixed due to drought conditions, south and west, 63 lb; Victoria, 63¾ lb; South Australia, semi-hard, 62½ lb, f.a.q., 63 lb; and Western Australia, 62½ lb.

Bulk handling and storage of wheat

A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954–8 of Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and in more recent years other States have also introduced bulk systems. The bodies concerned with the administration of bulk handling in the various States are: Grain Elevators Board of New South Wales, Victorian Grain Elevators Board, State Wheat Board (Queensland), South Australian Co-operative Bulk Handling Ltd., Co-operative Bulk Handling Ltd. (Western Australia), and the Tasmanian Grain Elevators Board.

The table below sets out the bulk handling capacities of the several States for the years 1962 to 1966.

WHEAT: TOTAL CAPACITY OF BULK HANDLING FACILITIES(*a*) STATES, 30 NOVEMBER 1962 TO 1966

('000 bushels)

State	1962	1963	1964	1965	1966
New South Wales	79,486	87,046	93,727	104,852	117,472
Victoria(*b*)	76,969	86,253	90,247	97,132	101,302
Queensland	9,525	11,081	13,178	15,956	19,213
South Australia	23,220	28,370	35,483	39,685	43,328
Western Australia	98,734	99,535	115,438	128,175	134,898
Tasmania	960	960	960	1,060	1,060
Australia	**288,894**	**313,245**	**349,033**	**386,860**	**417,273**

(*a*) Includes terminals, sub-terminals, country installations, and temporary storage. (*b*) Includes storage in southern New South Wales operated by the Victorian Grain Elevators Board.

Particulars of the operation of the bulk handling and storage systems in each State are set out on pages 916 and 917 of Year Book No. 48.

International wheat agreement

Details of the first and second International Wheat Agreements operative from 1 August 1949 to 31 July 1953, and from 1 August 1953 to 31 July 1956, respectively, were published in

Year Book No. 42 (*see* pages 840–1) and previous issues. Details of the third and fourth International Wheat Agreements which covered the period from 1 August 1956 to 31 July 1959 and 1 August 1959 to 31 July 1962 were published in Year Books 43 (page 836) and 48 (page 906), respectively.

A fifth International Wheat Agreement, ratified by the required number of wheat exporting and importing countries, came into force on 1 August 1962. This was intended to cover the three-year period from 1 August 1962 to 31 July 1965, but at a special meeting held in February 1965 the International Wheat Council adopted the text of a protocol providing for the prolongation of the Agreement, without amendment, to 31 July 1966. The council stated that it recognised the need for the maintenance of institutional arrangements to provide for continuing international co-operation in wheat matters, and that, following its decision to recommend a one-year extension of the existing agreement, it had given immediate consideration to preparatory work designed to ensure effective arrangements to follow the expiry of the term of the protocol. The Agreement was subsequently extended by protocol to 31 July 1967 and, with the exception of provisions relating to maximum and minimum prices, for a further year to 31 July 1968.

The current Agreement, negotiated at an international conference convened by the United Nations, continues the basic arrangements covered by previous Agreements. It seeks to obtain an element of stability in world wheat marketing by providing that a significant proportion of wheat entering international trade will be bought and sold at prices within a prescribed price range. The maximum and minimum prices fixed under the Agreement are expressed in terms of 'Canadian currency per bushel, at the parity of the Canadian dollar determined for the purposes of the International Monetary Fund as at 1 March 1949'. Member exporting countries compete to supply at prices within the prescribed range, which is from 202.5 cents (U.S. equivalent) or about 182.9 cents (Australian), to 162.5 cents (U.S. equivalent), or about 145.0 cents (Australian) per bushel. The maximum of the range is based on the price of Canada's No. 1 Northern Manitoba wheat in bulk in store at Fort William/Port Arthur. The minimum f.o.b. price for each exporter is the equivalent of the c. and f. price in the United Kingdom of the minimum price of Canada's No. 1 Northern Manitoba wheat in bulk in store at Fort William/Port Arthur, using currently prevailing transportation costs and exchange rates and making such allowance for differences in quality as may be agreed between the exporting and importing countries concerned.

Member importing countries have undertaken to buy each year from member exporting countries a stated percentage of their total commercial requirements at prices within the agreed range. For their part, exporting countries are obliged to make wheat available for purchase by importing countries in any crop year at prices within the price range in quantities sufficient to satisfy the commercial requirements of those countries; if the price goes to the maximum, exporters have undertaken to make available, at that maximum price, specified (datum) quantities based on their past trading record with member importers.

The current Agreement empowers the International Wheat Council to make an annual review of the world wheat situation, including the international implications of national policies in respect of wheat production, stocks and marketing, and the disposal of wheat surpluses on non-commercial terms.

Provision has also been made for the right of appeal against excessive discounts from the minimum price on the basis of differences in quality between the basic wheat—Canada's No. 1 Northern Manitoba wheat—and the wheat supplied by other member countries.

Member countries of the fifth International Wheat Agreement are as follows.

Exporters. Argentina, Australia, Canada, France, Italy, Mexico, Spain, Sweden, Union of Soviet Socialist Republics, and United States of America.

Importers. Austria, Belgium and Luxembourg, Brazil, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Federal Republic of Germany, Finland, Greece, Guatemala, Iceland, India, Indonesia, Ireland, Israel, Japan, Liberia, Libya, the Netherlands, New Zealand, Nigeria, Norway, Peru, Philippines, Portugal, Republic of Korea, Saudi Arabia, Sierra Leone, South Africa, Rhodesia, Switzerland, Tunisia, United Arab Republic, United Kingdom, Vatican City, Venezuela, and Western Samoa.

Research into the wheat industry

The extension and growth of the wheat industry in the past has been made possible to a large extent through research into new varieties of seed, crop rotation and fertiliser treatments by governmental, university and private research organisations. In recent years there has been a growing awareness of the value of this research, and funds are being raised by a direct levy on the growers' returns.

The *Wheat Tax Act* 1957 imposed a tax of 0.21 cents for each bushel of wheat:

(*a*) which was delivered to the Wheat Board on or after the first day of October 1956 and before the date of commencement of the Act, or

(*b*) which was delivered to the Wheat Board on or after that date.

The Act was amended in October 1965 to become the *Wheat Tax Act* 1957–1965 to provide for an increase in the rate of taxation from 0.21 cents to 0.25 cents for each bushel of wheat delivered to the Board on or after 1 October 1965. The *Wheat Research Act* 1957 provided for the establishment of a Wheat Research Trust Account to receive moneys payable under the *Wheat Tax Act* 1957, and for the setting up of a Wheat Industry Research Council to direct the expenditure of moneys from that account for research, etc. to benefit the wheat industry. This money, contributed by the growers, is being spent by the Wheat Industry Research Committees set up in the wheat-growing States. These Committees, which consist of representatives of wheatgrowers, universities and State Departments of Agriculture, also received a total of $568,000 under the provisions of the *Wheat Acquisition (Undistributed Moneys) Act* 1958.

The Commonwealth Government has undertaken to supply additional funds for research (with a maximum of $1 for $1 against the growers' contribution) and has set up the Wheat Industry Research Council to make recommendations on the appropriate expenditure of the Commonwealth contribution. The Council, at its inaugural meeting in February 1958, considered that possible avenues of research would include the breeding of better varieties, cereal chemistry, soil fertility, mechanisation, the industry's cost structure, and marketing problems. To the end of June 1966 the Council and the State Committees had spent $7,488,812, including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, universities, and agricultural colleges.

Wheat farms: number and classification by activity

Particulars of the number of farms growing twenty acres and upwards of wheat for grain during each of the years 1961–62 to 1965–66 are shown in the following table. A farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING TWENTY ACRES AND UPWARDS OF WHEAT FOR GRAIN: STATES AND A.C.T., 1961–62 TO 1965–66

State or Territory	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales . . .	17,489	18,286	17,753	18,537	16,194
Victoria	11,648	12,166	11,370	11,981	11,355
Queensland	4,483	5,095	4,927	5,236	4,941
South Australia . . .	9,434	9,881	9,902	9,657	9,387
Western Australia . . .	8,722	8,966	8,983	8,779	9,044
Tasmania	222	243	251	255	213
Australian Capital Territory .	25	27	29	20	13
Australia	**52,023**	**54,664**	**53,215**	**54,465**	**51,147**

There is in Australia a widespread combination of wheat growing with other rural activities. This is illustrated, for the 1959–60 season, by a table on pages 1016 and 1017 of Year Book No. 49.

Varieties of wheat sown

The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845–1905) did invaluable work in pioneering this field, and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown in any one season is restricted to about forty-five.

The principal varieties of wheat sown and the percentage of each to the total area sown in the five main wheat-producing States of Australia in 1965–66 were as follows: New South Wales, Heron (26.6), Falcon (15.5), Olympic (14.3); Victoria, Insignia (47.1), Olympic (23.2), Pinnacle (18.7); Queensland, Spica (33.2), Mendos (19.0), Gala (14.9); South Australia, Insignia (37.4), Heron (17.5), Gabo (13.6); and Western Australia, Gamenya (24.9), Gabo (18.4), Insignia (17.0), Insignia 49 (10.7). A detailed table of wheat varieties sown appears in the annual bulletin *The Wheat Industry* (*see* no. 110, published in February 1967).

Wheat area, production and yield per acre

Prominent factors in the early development of the wheat industry were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

The area, production and yield per acre of wheat for grain in each State are shown below for the years 1961–62 to 1965–66 in comparison with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND A.C.T., 1936-37 TO 1965-66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938–39	4,366	2,609	366	3,100	3,005	18	2	13,466
1948–49	4,519	3,241	439	2,319	2,685	7	4	13,214
1958–59	2,392	1,737	508	1,392	3,005	5	1	9,040
Year—								
1961–62	4,498	2,849	750	2,229	4,380	16	1	14,723
1962–63	5,008	3,125	919	2,595	4,804	15	3	16,469
1963–64	4,964	3,109	938	2,802	4,640	18	3	16,474
1964–65	5,760	3,236	1,026	2,727	5,151	17	2	17,919
1965–66	4,577	3,074	954	2,745	6,150	14	1	17,515
PRODUCTION ('000 BUSHELS)(*a*)								
Average for three years ended—								
1938–39	56,890	36,374	4,783	34,606	31,539	434	45	164,671
1948–49	58,537	48,332	8,569	28,856	31,517	138	78	176,027
1958–59	35,178	36,705	9,938	26,126	40,950	135	15	149,047
Year—								
1961–62	78,350	56,879	12,018	33,854	65,700	345	32	247,178
1962–63	109,002	67,899	18,683	38,339	72,500	419	70	306,912
1963–64	122,472	76,302	22,275	53,971	52,340	483	69	327,912
1964–65	151,483	78,166	22,830	52,817	63,071	364	58	368,789
1965–66	39,117	60,591	17,429	39,976	102,156	368	28	259,666
YIELD PER ACRE (BUSHELS)(*a*)								
Average for three years ended—								
1938–39	13.0	13.9	13.1	11.2	10.5	24.1	22.5	12.2
1948–49	13.0	14.9	19.5	12.4	11.7	19.7	19.5	13.3
1958–59	14.7	21.1	19.6	18.8	13.6	24.7	15.0	16.5
Year—								
1961–62	17.4	20.0	16.0	15.2	15.0	22.2	22.7	16.8
1962–63	21.8	21.7	20.3	14.8	15.1	27.3	29.3	18.6
1963–64	24.7	24.5	23.8	19.3	11.3	27.5	24.6	19.9
1964–65	26.3	24.2	22.3	19.4	12.2	21.7	27.6	20.6
1965–66	8.5	19.7	18.3	14.6	16.6	26.1	20.8	14.8

(*a*) 60 lb per bushel.

A graph showing the area sown to wheat for grain in Australia since 1900–1 appears on plate 43 of this Year Book, and a map showing the distribution of areas growing wheat for grain throughout Australia in 1962–63 appears on page 1013 of Year Book No. 50. Similar maps showing the distribution of wheat areas in 1924–25, 1938–39, 1947–48, and 1954–55 appeared respectively in Year Books No. 22, page 695, No. 34, page 451, No. 39, pages 977–8, and No. 43, page 883.

Apart from the variations in the area sown, the size of the wheat harvest in Australia is determined largely by the nature of the season, resulting in considerable year-to-year fluctuations in production. The main wheat-producing States of Australia are New South Wales, Victoria, South Australia, and Western Australia. Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits.

Production of wheat in 1965–66 at 259,666,000 bushels was 30 per cent below the record production of 1964–65, owing to severe drought conditions in New South Wales and Queensland. Compared with the previous season, production decreased in New South Wales by 112,367,000 bushels (74 per cent), Victoria, 17,574,000 bushels (23 per cent), Queensland, 5,400,000 bushels (24 per cent), and South Australia, 12,841,000 bushels (24 per cent). The fall in production was offset to some extent by a record crop in Western Australia, which exceeded that of the previous year by 39,085,000 bushels (62 per cent).

Short-term variations in yield per acre are due chiefly to seasonal influences. The yield per acre in 1965–66 (14.8 bushels) was the lowest since 1957–58. A record yield of 20.7 bushels was obtained in 1958–59.

The following table shows the average area, production and yield per acre for decennial periods since 1861 together with similar details for the latest season, 1965–66. Repeated cropping and short rotations (mainly in the eastern States) are believed to have led to the decline in yield to 1900, while fallowing and the widespread use of artificial fertilisers contributed to the increased yields in the decade following. The increase in yield since 1950 has been generally ascribed to the impact of improved pastures and ley-farming (broadly, the alternation of crops and pastures) upon soil fertility in wheat-growing areas. The production and yield per acre of wheat for each year from 1935–36 to 1965–66 are shown on plate 44 opposite.

WHEAT FOR GRAIN: AVERAGE AREA AND PRODUCTION, AUSTRALIA, 1861 TO 1965-66

Period	Area	Production	Yield per acre
	'000 acres	'000 bushels	bushels
Yearly average—			
1861–70	831	10,622	12.8
1871–80	1,646	17,711	10.8
1881–90	3,258	26,992	8.3
1891–1900	4,087	29,934	7.3
1901–10	5,711	56,058	9.8
1911–20	8,928	95,480	10.7
1921–30	11,291	135,400	12.0
1931–40	14,176	177,758	12.5
1941–50	11,358	145,599	12.8
1951–60	10,164	173,622	17.1
Year—			
1965–66	17,515	259,666	14.8

Price of wheat

The prices charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed were as follows: year ended 30 November 1963, $1.60; 1964, $1.46; 1965, $1.47; 1966, $1.53; and 1967, $1.57. These prices include a loading to meet freight charges incurred on wheat shipped to Tasmania (1.25 cents in 1963; 1.66 cents in 1964; 0.83 cents in 1965; 1.66 cents in 1966; and 1.50 cents in 1967).

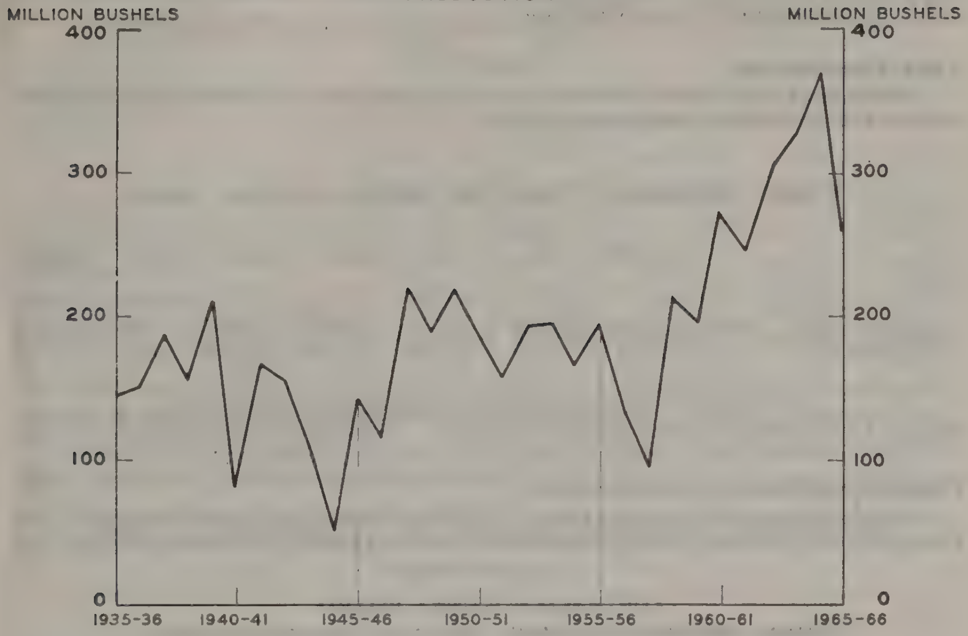
The Wheat Board's monthly basic export selling prices for f.a.q. bulk wheat f.o.b. basis, both for wheat sold under the International Wheat Agreement and for 'free' wheat sold on the open market, fell in the following ranges: season ended 31 July 1963, $1.42 to $1.49; 1964, $1.43 to $1.58; 1965, $1.35 to $1.52; and 1966, $1.38 to $1.51. Actual selling prices have been lower than the basic prices in some cases, particularly where other exporting countries enjoy a geographical freight advantage.

The 1959 International Wheat Agreement set the maximum price at 200 cents (U.S. equivalent) a bushel and the minimum at 150 cents (U.S. equivalent) for f.a.q. wheat sold under the Agreement. Under the current 1962 Agreement operative from 1 August 1962 (*see* page 903) the agreed price range is between 202.5 cents (U.S. equivalent) and 162.5 cents (U.S. equivalent). Directly converted into Australian currency these limits are approximately 182.9 cents and 145.0 cents a bushel respectively.

WHEAT FOR GRAIN

AUSTRALIA, 1935-36 TO 1965-66

PRODUCTION



YIELD PER ACRE

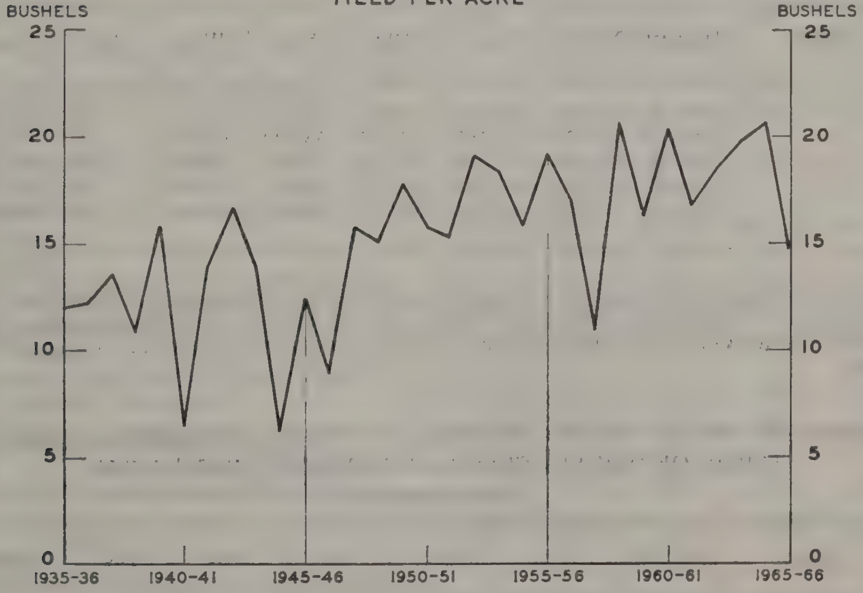


PLATE 44

Details of export prices of wheat in previous years, including those received for wheat sold under the terms of the 1949–1953 International Wheat Agreement, are given in Year Book No. 40, pages 849–50, and in the statistical bulletin *The Wheat Industry, Australia*, No. 99, March 1961, and in previous issues of these publications.

Value of the wheat crop

The estimated gross value of the wheat crop in each State and in Australia during the season 1965–66 and the value per acre are shown below.

WHEAT FOR GRAIN: VALUE OF CROP(*a*), STATES, 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*b*)
Aggregate value	$'000	56,524	89,939	25,231	59,559	153,050	508	384,853
Value per acre	$	12.35	29.26	26.45	21.70	24.89	36.01	21.97

(*a*) Gross value of total crop, including wheat used for seed and for stock feed on farms. Also includes payment of $16,154,000 by the Commonwealth Government. (*b*) Includes the Australian Capital Territory.

Production and disposal of wheat in Australia

In the following tables details are given of Australian Wheat Board transactions and of total production and disposal of wheat during each of the years ended 30 November 1962 to 1966.

AUSTRALIAN WHEAT BOARD
WHEAT RECEIVED, STATES, 1961–62 TO 1965–66 HARVESTS

('000 bushels)

Pool	Harvest	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
25 . . .	1961–62	67,784	55,121	9,981	30,737	60,459	208	224,290
26 . . .	1962–63	98,677	67,215	17,537	35,120	66,898	275	285,722
27 . . .	1963–64	110,722	77,728	20,330	51,660	47,071	325	307,836
28 . . .	1964–65	137,495	80,685	20,712	49,991	57,440	188	346,511
29 . . .	1965–66	27,554	60,904	13,701	36,160	95,837	217	234,373

Stocks of wheat (including flour in terms of wheat) held by the Australian Wheat Board in each State at 30 November for the years 1962 to 1966 are shown in the following table. These data relate to stocks held at mills, sidings, ports, and depots as recorded by the Australian Wheat Board.

AUSTRALIAN WHEAT BOARD: STOCKS(*a*) OF WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT), STATES, 30 NOVEMBER 1962 TO 1966

('000 bushels)(*b*)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1962 . . .	5,574	6,021	1,333	1,831	2,449	491	17,699
1963 . . .	10,879	7,000	775	1,775	2,221	625	23,275
1964 . . .	7,340	7,490	806	3,048	1,257	472	20,413
1965 . . .	15,265	3,716	862	2,602	1,556	382	24,383
1966 . . .	3,406	6,020	343	2,623	3,626	529	16,547

(*a*) Held at mills, sidings, ports and depots. Excludes new season's wheat received from growers prior to 30 November of years shown. (*b*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat.

Particulars of the disposal of wheat during the years ended 30 November 1962 to 1966, as recorded by the Australian Wheat Board, are shown in the following table.

AUSTRALIAN WHEAT BOARD: DISPOSAL OF WHEAT, 1962 TO 1966

('000 bushels)

	Year ended 30 November—				
	1962	1963	1964	1965	1966
Exported as wheat	152,818	203,703	221,530	243,725	158,104
Exported as flour(*a*)	25,123	24,903	31,797	23,318	16,615
Sold for local consumption as flour	40,736	40,389	42,954	44,160	44,164
Sold for other purposes	11,635	10,791	13,658	30,556	22,705

(*a*) Includes wheat equivalent of manufactured wheat products exported.

A summary of *all* transactions in wheat for Australia, as distinct from those recorded for the Wheat Board above, appears in the following table.

WHEAT: PRODUCTION AND DISPOSAL, AUSTRALIA, 1962 TO 1966

(million bushels)(*a*)

	Year ended 30 November—				
	1962	1963	1964	1965	1966
Opening stocks (including flour)(*b*)(*c*)(*d*) .	24.4	17.7	23.3	20.4	24.4
Production	247.2	306.9	327.9	368.8	259.7
Total available supplies . . .	*271.6*	*324.6*	*351.2*	*389.2*	*284.1*
Exports—					
Wheat	154.7	200.4	221.6	244.5	159.8
Flour(*b*)	26.6	25.1	34.4	23.8	17.0
Breakfast foods and other products(*b*)(*d*) .	0.6	0.7	0.7	0.7	0.7
Local consumption—					
Flour(*b*)(*d*)	40.7	40.4	43.0	44.2	44.2
Breakfast foods and other products(*b*)(*d*) .	1.6	1.7	1.8	1.9	2.4
Stock feed wheat sales(*d*)	10.0	9.1	12.0	28.7	20.3
Seed	15.4	15.4	16.6	16.3	18.5
Retained on farm (excluding seed) . .	7.4	5.8	3.4	6.0	6.7
Closing stocks (including flour)(*b*)(*c*)(*d*) .	17.7	23.3	20.4	24.4	16.5
Total disposals	*274.7*	*321.9*	*353.9*	*390.5*	*286.1*
Excess (+) or deficiency (—) of disposals in relation to available supplies(*e*) . .	+3.1	—2.7	+2.7	+1.3	+2.0

(*a*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat. (*b*) In terms of wheat. (*c*) Held at ports, depots, mills, and sidings. (*d*) *Source:* Australian Wheat Board. (*e*) Includes allowance for unrecorded movements in stocks, gain or loss in out-turn, etc.

The *Wheat Industry Stabilization Act* 1948 empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. These provisions have been continued in the subsequent legislation, with the exception that advances are now arranged through the Reserve Bank.

AUSTRALIAN WHEAT BOARD: FINANCIAL OPERATIONS, POOLS NOS. 25 TO 29

($'000)

	No. 25 Pool (1961–62 Harvest)	No. 26 Pool (1962–63 Harvest)	No. 27 Pool (1963–64 Harvest)	No. 28 Pool (1964–65 Harvest)	No. 29 Pool(*a*) (1965–66 Harvest)
Paid to growers	288,414	351,972	373,254	409,337	223,177
Rail freight	33,886	45,358	49,270	57,765	34,633
Expenses	16,720	20,552	17,990	21,298	20,542
Total payments	*339,020*	*417,882*	*440,514*	*488,400*	*278,352*
Value of sales delivered	(*b*)324,910	(*c*)395,842	(*d*)439,262	(*e*)471,052	(*f*)334,660

(*a*) Incomplete. (*b*) Subject to additional $14,576,000 provided by the Commonwealth Government and payment of $466,000 to Wheat Industry Research Fund. (*c*) Subject to additional $22,634,000 provided by the Commonwealth Government and payment of $594,000 to Wheat Industry Research Fund. (*d*) Subject to additional $1,892,000 provided by the Commonwealth Government and payment of $640,000 to Wheat Industry Research Fund. (*e*) Subject to additional $18,069,000 provided by the Commonwealth Government and payment of $722,000 to Wheat Industry Research Fund. (*f*) Subject to additional $16,154,000 provided by the Commonwealth Government and payment of $586,000 to Wheat Industry Research Fund.

Details of earlier pools will be found in previous issues of the Year Book.

Imports of wheat

Wheat and flour have been imported in substantial quantities on three occasions since 1900; in 1902–3 the wheat harvest was only 12,378,000 bushels, and wheat and flour equivalent to 12,468,000 bushels of wheat were imported. An equivalent of 7,279,000 bushels was imported in 1914–15 to supplement the yield of 25 million bushels produced in that season. Owing to drought conditions in 1957–58 supplies of high protein wheat were insufficient for local requirements and, as a result, 1,485,000 bushels were imported from Canada in 1958. No wheat has since been imported.

Exports of wheat and flour

Statistics in the following three tables are for years ended 30 June and relate to the exports of *Australian produce* only.

WHEAT AND FLOUR: EXPORTS, AUSTRALIA, 1961–62 TO 1965–66

Year	Quantity				Value		
	Wheat	Flour		Total (in terms of wheat)	Wheat	Flour(*a*)	Total
		As flour (*a*)	In terms of wheat (*b*)				
	'000 bushels	short tons	'000 bushels	'000 bushels	$'000 f.o.b.	$'000 f.o.b.	$'000 f.o.b.
1961–62	203,155	602,665	27,903	231,058	284,892	36,328	321,220
1962–63	151,970	544,441	25,208	177,178	216,904	32,660	249,565
1963–64	253,724	714,939	33,102	286,826	362,018	43,758	405,776
1964–65	209,980	598,037	27,689	237,669	297,199	39,122	336,321
1965–66	189,479	416,201	19,270	208,749	264,062	26,526	290,588

(*a*) White flour (plain and self-raising), sharps and wheatmeal for baking. (*b*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat.

WHEAT: EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA, 1961–62 TO 1965–66

('000 bushels)

Country to which exported	1961–62	1962–63	1963–64	1964–65	1965–66
China (mainland)	71,760	76,230	93,440	83,623	74,131
United Kingdom	23,282	16,317	28,146	19,132	23,293
U.S.S.R. (Europe and Asia)	. .	23	51,045	31,665	21,146
Japan	15,698	12,673	18,800	16,276	13,357
India	21,166	7,144	7,572	17,543	6,650
Iran	582	705	1,163	8,983	6,046
New Zealand	6,252	6,088	6,687	6,104	5,461
United Arab Republic	3,952	. .	285	728	4,551
Singapore(*a*)	63	32	1,588	(*b*)	4,479
Malaysia(*c*)	522	560	149	3,669	3,758
Norway	2,472	2,739	4,169	2,830	702
Other	57,406	29,459	40,680	19,427	25,905
Total	**203,155**	**151,970**	**253,724**	**209,980**	**189,479**

(*a*) Included in Malaysia from 1 July 1964 to 30 September 1965. (*b*) Not recorded separately; *see* footnote (*a*). (*c*) Includes Singapore from 1 July 1964 to 30 September 1965.

The following table shows the exports of flour to various countries for each of the years 1961–62 to 1965–66. The figures relate to exports of white flour (plain and self-raising), sharps and wheatmeal for baking.

FLOUR: EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA, 1961–62 TO 1965–66

(Short tons)

Country to which exported	1961–62	1962–63	1963–64	1964–65	1965–66
Ceylon	178,538	103,503	115,273	191,144	170,083
Fiji	30,240	29,554	37,993	34,915	34,223
United Kingdom	66,560	66,641	48,744	45,579	33,071
Malaysia(*a*)	93,924	95,724	95,410	97,560	32,344
South Arabia, Federation of	34,997	38,914	40,675	44,990	29,968
Saudi Arabia	11,551	16,212	12,563	15,822	16,692
Papua and New Guinea	12,113	10,370	11,512	13,871	15,859
Mauritius	13,468	14,011	21,279	19,860	11,818
Thailand	13,957	17,129	14,718	8,483	6,194
Singapore(*b*)	52,872	51,781	47,242	(*c*)	1,973
Other	94,445	100,602	269,530	125,813	63,976
Total	**602,665**	**544,441**	**714,939**	**598,037**	**416,201**

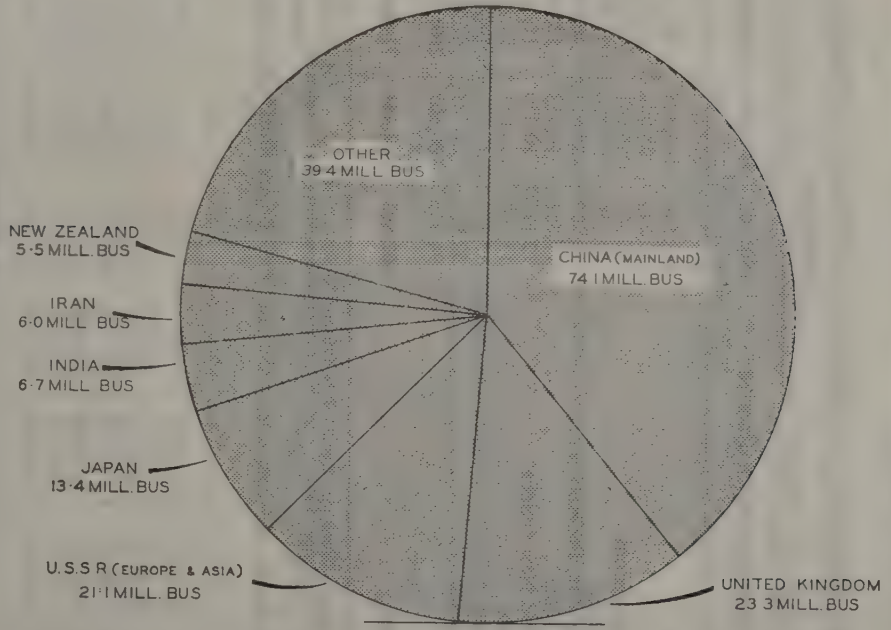
(*a*) Includes Singapore from 1 July 1964 to 30 September 1965. (*b*) Included in Malaysia from 1 July 1964 to 30 September 1965. (*c*) Not recorded separately; *see* footnote (*b*).

The exports of wheat during the year 1965–66 are illustrated in plate 45 over the page.

EXPORTS OF WHEAT AND FLOUR

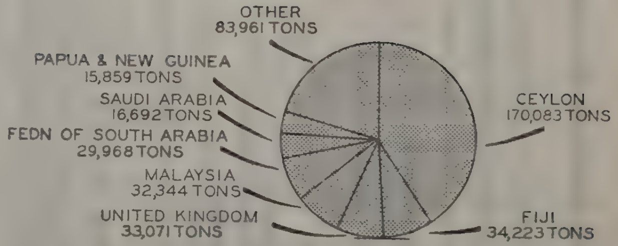
AUSTRALIA, 1965-66

WHEAT



TOTAL: 189·5 MILLION BUSHELS

FLOUR



TOTAL: 416,201 SHORT TONS

(ONE SHORT TON OF FLOUR IS EQUIVALENT TO 46·3 BUSHELS OF WHEAT
I.E. 416,201 SHORT TONS OF FLOUR = 19·3 MILLION BUSHELS OF WHEAT)

PLATE 45

World area and production of wheat

The figures in the following table of the world area and production of wheat by principal countries and by continents have been compiled from the statistics published by the International Wheat Council. Harvests in the northern hemisphere occur in the first of the two years mentioned in each column heading, and in the southern hemisphere at the end of that year and the beginning of the next. Harvests of the northern hemisphere countries are thus combined with those of the southern hemisphere which immediately follow; e.g. in 1965–66 the Canadian harvest occurred from August to September 1965 and the Australian harvest from September 1965 to February 1966.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES 1963-64 TO 1965-66

(*Source for countries other than Australia:* International Wheat Council—*World Wheat Statistics*)

Continent and country	Area			Production			Yield per acre		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
	'000 acres	'000 acres	'000 acres	mill. bus	mill. bus	mill. bus	bus	bus	bus
Europe—									
France	9,513	10,843	11,192	377	509	527	39.9	46.9	47.2
Italy	10,858	10,892	10,601	299	316	359	27.5	30.0	33.9
Romania	7,102	7,312	7,731	140	141	218	19.6	19.2	28.2
Spain	10,495	10,316	10,519	179	146	173	17.0	14.1	16.5
Total, Europe(a)	*68,504*	*71,958*	*71,105*	*2,016*	*2,246*	*2,458*	*29.4*	*31.2*	*34.6*
U.S.S.R. (Europe and Asia)	159,649	167,749	173,464	1,826	2,734	2,190	11.4	16.3	12.6
Asia—									
China (mainland)(*b*)	59,799	63,012	61,034	801	849	790	13.4	13.5	12.9
India	33,747	33,349	33,260	398	362	452	11.8	10.9	13.6
Turkey	19,724	19,797	19,840	349	310	317	17.7	15.7	16.0
Pakistan	12,592	12,543	13,272	155	154	170	12.3	12.3	12.8
Total, Asia(a)	*151,646*	*153,920*	*153,054*	*2,005*	*2,008*	*2,085*	*13.2*	*13.0*	*13.6*
North and Central America—									
United States	45,209	49,121	49,560	1,147	1,283	1,316	25.4	26.1	26.5
Canada	27,566	29,686	28,282	723	600	649	26.2	20.2	22.9
Total, North and Central America(a)	*74,896*	*80,975*	*80,036*	*1,934*	*1,964*	*2,050*	*25.8*	*24.2*	*25.6*
South America—									
Argentina	14,025	15,160	10,413	329	414	228	23.4	27.3	21.9
Total, South America(a)	*19,990*	*20,460*	*15,147*	*409*	*509*	*309*	*20.4*	*24.9*	*20.4*
Oceania—									
Australia	**16,474**	**17,919**	**17,515**	**328**	**369**	**260**	**19.9**	**20.6**	**14.8**
Total, Oceania(a)	*16,679*	*18,103*	*17,710*	*338*	*378*	*270*	*20.3*	*20.9*	*15.2*
Africa	18,854	19,323	18,854	235	213	220	12.5	11.0	11.7
World total(*a*)	510.192	532,436	529,370	8,763	10,051	9,582	17.2	18.9	18.1

(*a*) Includes allowances for any missing data for countries shown and for other producing countries not shown. (*b*) International Wheat Council estimate.

Principal wheat exporting and importing countries

The following table shows world exports of wheat and wheat flour (in terms of wheat) by the major wheat exporting countries, according to continents and countries of primary destination, based on statistics recently published by the International Wheat Council. While Australia's production of wheat has averaged about three per cent of the world's total during recent years, its exports account for a much higher proportion of the total quantities shipped. For the three years ended 1965–66 Australia's share of the world wheat exports has averaged twelve per cent.

WORLD EXPORTS OF WHEAT AND WHEAT FLOUR IN TERMS OF WHEAT

(*Source:* International Wheat Council—*World Wheat Statistics*)

(Million bushels)

Year and country of primary destination	Exporting country—							
	United States of America	Canada	Argentina	Australia	France	U.S.S.R.	Other	Total
1961–62	717.8	365.2	87.3	230.6	67.4	185.6	90.2	1,744.1
1962–63	636.8	331.2	66.4	175.9	109.4	195.8	83.7	1,599.2
1963–64	848.7	554.4	102.0	287.1	98.5	47.1	134.3	2,072.1
1964–65	720.4	437.6	163.3	237.7	169.6	42.6	110.7	1,881.9
1965–66p—								
Asia(*a*)—								
India	262.2	11.3	..	6.2	..	..	..	279.7
China (mainland)	..	75.4	82.3	74.1	1.4	..	0.9	234.1
Japan	71.4	47.2	..	13.3	..	..	..	131.9
Pakistan	35.8	1.2	..	2.0	..	..	..	39.1
Philippines	16.0	3.2	..	0.1	0.9	..	1.3	21.5
Other	99.7	7.0	4.6	42.5	7.3	4.5	16.8	182.3
Total, Asia	*485.1*	*145.3*	*86.9*	*138.2*	*9.6*	*4.5*	*19.0*	*888.6*
Europe(*a*)—								
United Kingdom	29.8	78.1	12.5	24.8	13.9	..	8.5	167.6
Germany, East	1.7	6.2	..	0.4	28.3	33.6	3.1	73.3
Poland	1.0	12.9	3.3	..	25.6	5.0	12.3	60.1
Yugoslavia	54.8	..	..	..	..	..	..	54.8
Czechoslovakia	..	7.6	0.2	..	13.1	31.2	1.4	53.5
Germany, Federal Republic of	14.1	19.7	4.2	0.4	7.6	..	4.7	50.7
Italy	8.3	6.3	17.7	..	11.3	..	3.0	46.6
Netherlands	31.0	3.6	5.8	..	2.8	..	0.2	43.4
Switzerland	8.2	7.2	0.5	..	8.0	..	2.1	26.0
Other	34.2	24.2	9.6	3.2	17.0	..	14.8	103.0
Total, Europe	*183.1*	*165.8*	*53.8*	*28.8*	*127.6*	*69.8*	*50.1*	*679.0*
U.S.S.R.	..	189.9	80.3	21.2	4.8	..	21.2	317.4
Africa—								
United Arab Republic	47.3	..	..	4.6	5.8	5.8	24.8	88.3
Other	48.0	3.0	2.1	7.0	22.3	0.8	10.5	93.7
Total, Africa	*95.3*	*3.0*	*2.1*	*11.6*	*28.1*	*6.6*	*35.3*	*182.0*
South America—								
Brazil	32.4	..	48.2	..	..	..	4.9	85.5
Other	49.2	8.5	20.6	0.1	0.4	..	1.0	79.8
Total, South America	*81.6*	*8.5*	*68.8*	*0.1*	*0.4*	..	*5.9*	*165.3*
North and Central America	15.5	32.4	0.2	0.3	4.2	..	1.0	53.6
Oceania	0.1	0.1	..	8.3	0.9	..	..	9.4
All other	0.1	..	..	0.2	..	..	0.4	0.7
World total, 1965-66	**860.8**	**545.0**	**292.0**	**208.7**	**175.7**	**80.9**	**132.9**	**2,296.0**

(*a*) Excludes U.S.S.R., details for which are shown separately.

The above particulars are based on customs clearances of the exporting countries, and relate to years ended 30 June. There are small differences between Australian exports as shown and those on pages 910–11 due in part to the use by the International Wheat Council of a slightly different factor to convert flour to wheat equivalent.

Oats

This cereal is widely grown in all agricultural areas which have autumn, winter and spring rainfall; it is tolerant of wet conditions and heavy soils. It has excellent feed value and produces a higher yielding crop than other winter cereals. It needs less cultivation, but requires ample fertiliser. Oats has a variety of uses—as a pasture plant when rough sown into stubble or heavy clover pastures, as silage if cut before maturity, as a hay crop when mown and baled or cut for chaff, or as a grain when stripped (the stubble then being grazed off). The grain is sold on a 'fair average quality' basis through voluntary pools in Victoria, South Australia and Western Australia.

Oats area, production and yield per acre

Oats is usually next in importance to wheat among the grain crops cultivated in Australia. However, while wheat grown for grain in 1965–66 accounted for 51 per cent of the area of all crops, oats grown for grain represented only 11 per cent. The area, production and yield per acre of oats in each State are shown below for the years 1961–62 to 1965–66 in comparison with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59. Drought conditions in New South Wales, one of the principal producing States, caused the 1965–66 crop to fall below the level of recent years.

OATS FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND A.C.T., 1936-37 TO 1965-66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938–39 .	297	478	8	338	425	26	..	1,572
1948–49 .	515	548	21	282	484	17	1	1,868
1958–59 .	756	735	29	445	1,178	20	..	3,163
Year—								
1961–62 .	713	774	27	324	1,231	27	1	3,097
1962–63 .	708	932	27	416	1,177	31	1	3,292
1963–64 .	794	910	31	501	1,125	30	1	3,392
1964–65 .	850	966	55	444	1,152	28	1	3,497
1965–66 .	1,033	966	45	455	1,240	28	1	3,768
PRODUCTION ('000 BUSHELS) (*a*)								
Average for three years ended—								
1938–39 .	4,065	4,781	65	2,575	4,159	810	6	16,461
1948–49 .	7,166	9,757	324	3,606	5,355	406	7	26,621
1958–59 .	12,619	14,140	547	7,911	15,606	409	10	51,242
Year—								
1961–62 .	13,225	16,312	412	4,391	20,187	587	16	55,130
1962–63 .	16,035	27,042	545	5,770	18,572	828	17	68,809
1963–64 .	19,811	19,885	673	9,149	17,850	844	22	68,234
1964–65 .	22,885	22,446	1,171	8,977	14,011	521	32	70,043
1965–66 .	12,607	17,784	735	5,622	23,279	677	37	60,739
YIELD PER ACRE (BUSHELS) (*a*)								
Average for three years ended—								
1938–39 .	13.7	10.0	8.1	7.6	9.8	3.1	24.3	10.5
1948–49 .	13.9	17.8	15.4	12.8	11.1	2.4	11.8	14.3
1958–59 .	16.7	19.2	18.9	17.8	13.3	20.5	22.5	16.2
Year—								
1961–62 .	18.5	21.1	15.4	13.6	16.4	21.8	18.7	17.8
1962–63 .	22.7	29.0	20.0	13.9	15.8	26.6	25.6	20.9
1963–64 .	24.9	21.8	21.7	18.3	15.9	27.8	19.8	20.1
1964–65 .	26.9	23.2	21.1	20.2	12.2	18.5	21.6	20.0
1965–66 .	12.2	18.4	16.3	12.4	18.8	23.9	25.6	16.1

(*a*) 40 lb per bushel.

Graphs showing the area sown to oats and production of oats in Australia appear on pages 993 and 995 of Year Book No. 49, and a map showing the distribution of areas growing oats for grain throughout Australia in 1962–63 appears on page 1015 of Year Book No. 50. The area sown to oats from 1900–01 is shown in plate 43, page 894.

In 1965–66 the production of oats was 60,739,000 bushels, 26,166,000 bushels (30 per cent) below the record harvest of 86,905,000 bushels in 1958–59. The yield per acre in 1965–66 was 16.1 bushels, compared with the record yield of 21.9 bushels per acre established in 1958–59. The lowest yield recorded was 4.4 bushels per acre in the abnormally dry season of 1944–45.

Value of oat crop

The average wholesale price in the Melbourne market for oats of good milling quality was $0.94 a bushel in 1965–66, compared with $0.77 in 1964–65. The estimated gross value of the oat crop in each State for the 1965–66 season and the value per acre were as follows.

OATS FOR GRAIN: VALUE OF CROP, STATES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (*a*)
Aggregate value . $'000	15,002	15,287	691	3,346	18,403	558	53,323
Value per acre . $	14.53	15.83	15.36	7.36	14.84	19.72	14.15

(*a*) Includes the Australian Capital Territory.

Exports of oats

The production of oats in Australia is sufficient to allow for an export trade which fluctuates with the incentive offered by overseas prices. The quantities and values of Australian-produced oats exported from Australia during the years 1961–62 to 1965–66 are shown below.

OATS: EXPORTS, AUSTRALIA, 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
Quantity . . . '000 bus.	19,064	17,744	16,673	20,161	13,825
Value . . $'000 f.o.b.	14,957	14,152	12,623	15,616	11,980

In 1965–66 the principal countries of destination were the Federal Republic of Germany (9,282,000 bushels), Italy (1,502,000 bushels), the United Kingdom (919,000 bushels), the Netherlands (768,000 bushels), and Japan (606,000 bushels). Imports of oats into Australia are not recorded separately.

Oatmeal and other oat products

In 1965–66 the production of granulated or rolled oats or oatmeal (kilned and unkilned) for breakfast foods, porridge and other purposes was 35,600 tons.

World production of oats

The world production of oats for the year 1965, according to figures issued by the United States Department of Agriculture, amounted to 3,030 million bushels, harvested from 73.5 million acres, resulting in an average yield of 41.2 bushels an acre. This compared with an estimated production in the previous year of 2,890 million bushels from an area of 74.5 million acres and an average yield of 38.8 bushels an acre.

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley was formerly stubble-sown, but is now grown principally on pasture land worked up early in the year of sowing. In this way it forms an important phase in the rotation of the land. Like oats, it may also be sown for fodder production or for grain. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock (especially pigs) or sold for malting.

Crops sown for malting purposes require well-worked, weed-free paddocks of even soil, and are thus restricted to specific districts. The main barley-growing areas in Australia are situated in South Australia (Murray-Mallee, Eyre and Yorke Peninsulas), but considerable quantities are grown also in New South Wales, Victoria, Queensland, and Western Australia.

Barley boards

The bulk of the barley crop in the various States is acquired and marketed by grower-controlled boards. Pooled returns from sales are distributed to growers at standard rates for the individual grades and varieties delivered. The Victorian and South Australian crops are marketed by the Australian Barley Board (a joint board established by the two State Governments), and the Queensland and Western Australian Barley Boards handle the crops of their respective States. Particulars of the proportion of barley production which was received by the Australian Barley Board (for Victoria and South Australia), together with details of quantity sold, advances and total payments to growers, are presented below.

AUSTRALIAN BARLEY BOARD: BARLEY RECEIVED, SOLD, ETC.
1961–62 TO 1965–66

Pool	Quantity received	Quantity sold(*a*)	Total advances made per bushel on 2-row no. 1 grade less freight	Total net payments to growers
	'000 bushels	'000 bushels	$	$'000
No. 23 (1961–62 Crop) .	20,081	20,059	1.1607	19,414
,, 24 (1962–63 ,,) .	17,195	17,285	1.1563	16,666
,, 25 (1963–64 ,,) .	23,145	23,204	1.1862	22,446
,, 26 (1964–65 ,,) .	25,465	25,404	1.2000	25,184
,, 27 (1965–66 ,,) .	14,922	14,893	*b* 1.2000	*b* 13,785

(*a*) Includes surplus or shortage in out-turn, except for No. 27 Pool for which the surplus has not yet been ascertained. (*b*) As at 30 April 1967. At that date it was estimated that the amount still to be paid to growers was 6.969 cents per bushel.

Barley area, production and yield per acre

There was a substantial increase in the area of barley sown for grain (particularly in Western Australia and Queensland) in the years up to 1960–61, and in that year the area sown reached the record level of 2,830,000 acres. However, the area sown in 1965–66, 2,298,000 acres was 19 per cent less than the area in 1960–61. The production of barley for grain in 1965–66, 41,835,000 bushels, was 39 per cent less than the record production of 67,970,000 bushels in 1960–61. The area, production and yield per acre of barley for grain in the several States for the years 1961–62 to 1965–66, compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown in the following table. Separate details for 2-row and 6-row varieties are shown for all States for 1965–66.

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND A.C.T., 1936–37 TO 1965–66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938–39 . . .	13	138	10	391	53	8	..	613
1948–49 . . .	23	166	18	587	65	7	..	866
1958–59 . . .	73	354	184	1,255	324	8	..	2,198
Year—								
1961–62 . . .	201	225	177	1,271	490	19	..	2,383
1962–63 . . .	221	194	150	1,053	390	19	..	2,027
1963–64 . . .	211	190	176	1,123	299	14	..	2,013
1964–65 . . .	239	187	225	1,095	303	15	..	2,064
1965–66—								
2-row . . .	136	181	302	1,056	72	19	..	1,766
6-row . . .	100	11	37	42	341	1	..	531
Total . .	*236*	*192*	*338*	*1,098*	*413*	*20*	..	*2,298*

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND A.C.T., 1936–37 TO 1965–66—*continued*

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
				PRODUCTION ('000 BUSHELS)(*a*)				
Average for three years ended—								
1938–39	197	2,174	135	6,816	660	252	..	10,234
1948–49	316	3,149	375	11,964	748	194	..	16,746
1958–59	1,463	7,192	4,673	29,740	4,239	267	..	47,574
Year—								
1961–62	4,137	4,654	3,532	21,292	7,282	607	..	41,504
1962–63	5,331	5,469	4,088	18,004	6,056	631	..	39,579
1963–64	5,351	4,025	5,191	24,337	4,077	414	..	43,395
1964–65	6,707	4,335	7,111	26,932	3,701	529	..	49,315
1965–66—								
2-row	2,201	3,038	8,145	17,927	1,263	661	..	33,235
6-row	1,601	179	992	587	5,218	23	..	8,600
Total	*3,801*	*3,218*	*9,137*	*18,514*	*6,481*	*684*	..	*41,835*
				YIELD PER ACRE (BUSHELS)(*a*)				
Average for three years ended—								
1938–39	15.2	15.7	13.5	17.4	12.5	31.5	52.3	16.7
1948–49	13.7	19.0	20.8	20.4	11.5	27.7	19.5	19.3
1958–59	20.0	20.3	25.4	23.7	13.1	33.4	..	20.7
Year—								
1961–62	20.6	20.6	20.0	16.8	14.8	32.4	..	17.4
1962–63	24.2	28.1	27.3	17.1	15.5	31.9	..	19.5
1963–64	25.3	21.2	29.5	21.7	13.6	30.0	..	21.6
1964–65	28.1	23.2	31.6	24.6	12.2	34.2	..	23.9
1965–66—								
2-row	16.1	16.8	27.0	17.0	17.6	34.3	..	18.8
6-row	16.1	16.2	27.1	14.0	15.3	36.8	..	16.2
Total	*16.1*	*16.7*	*27.0*	*16.9*	*15.7*	*34.4*	..	*18.2*

(*a*) 50 lb per bushel.

For Australia, 77 per cent of the area of barley for grain in 1965–66 was sown with 2-row barley, while the remainder consisted of 6-row varieties. The proportion, however, varied considerably in the several States. The utilisation of barley during the season ended November 1966 was as follows: exports, 9,842,000 bushels; malting and distilling, 13,200,000 bushels; pearl barley, 141,000 bushels; seed, 3,000,000 bushels.

The following table sets out the acreage and production of 2- and 6-row barley in Australia during the seasons 1961–62 to 1965–66 and the averages for the three years ended 1938–39, 1948–49 and 1958–59.

BARLEY FOR GRAIN, 2- AND 6-ROW: AREA AND PRODUCTION AUSTRALIA, 1936-37 TO 1965-66

Period	Area ('000 acres)			Production ('000 bushels)(*a*)			Yield per acre (bushels)(*a*)		
	2-row	6-row	Total	2-row	6-row	Total	2-row	6-row	Total
Average for three years ended—									
1938–39	523	90	613	8,963	1,271	10,234	17.1	14.1	16.7
1948–49	769	97	866	15,142	1,604	16,746	19.7	16.5	19.3
1958–59	1,809	389	2,198	41,633	5,941	47,574	23.0	15.3	20.7
Year—									
1961–62	(*b*)1,777	(*b*) 587	2,383	*b* 31,739	(*b*) 9,158	41,504	(*b*) 17.9	(*b*) 15.6	17.4
1962–63	1,553	474	2,027	31,370	8,209	39,579	20.2	17.3	19.5
1963–64	1,621	392	2,013	36,464	6,931	43,395	22.5	17.7	21.6
1964-65	1,655	409	2,064	41,775	7,540	49,315	25.2	18.4	23.9
1965–66	1,766	531	2,298	33,235	8,600	41,835	18.8	16.2	18.2

(*a*) 50 lb per bushel. (*b*) Excludes Tasmania.

A graph showing the production of barley in Australia since 1935–36 appears on page 995 of Year Book No. 49, and a map showing the distribution of barley growing areas throughout Australia in 1962–63 appears on page 1014 of Year Book No. 50.

Value of barley crop

The average wholesale price for 2-row English malting barley in the Melbourne market was $1.47 a bushel in 1965–66, the same figure as in 1964–65. The estimated gross value of the barley crop in each State for the 1965–66 season and the value per acre are shown in the following table.

BARLEY FOR GRAIN: VALUE OF CROP, STATES, 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Aggregate value .	$'000	5,318	3,662	10,521	20,234	7,298	899	47,932
Value per acre .	$	22.52	19.05	31.11	18.43	17.67	45.16	20.86

Exports of barley

South Australia was the principal exporting State in 1965–66, and Italy, the Federal Republic of Germany, Japan, the United Kingdom, and the Netherlands were the principal countries to which barley was shipped. Particulars of exports of Australian produced barley for the years 1961–62 to 1965–66 are shown in the following table.

BARLEY: EXPORTS, AUSTRALIA, 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Quantity .	'000 bus	31,435	10,322	17,756	16,281	9,994
Value . .	$'000 f.o.b.	29,908	10,458	18,298	18,002	11,508

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1965–66 amounting to 529,945 lb, valued at $20,264, the main country of consignment being Kuwait. Imports of barley into Australia are not recorded separately, but are considered to be negligible.

Barley malt

Details of the recorded usage of barley and the production of barley malt in the years 1961–62 to 1965–66 are given in the following table.

BARLEY MALT: GRAIN USED AND MALT PRODUCED, AUSTRALIA 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Barley used . .	'000 bus(*a*)	10,287	10,119	11,886	11,667	12,883
Malt produced .	'000 bus(*b*)	10,207	10,429	11,988	12,127	13,235

(*a*) 50 lb per bushel. (*b*) 40 lb per bushel.

Since 1952–53 the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports of Australian produce amounting to 4,058,000 bushels (value $7,842,000) and 4,678,000 bushels (value $9,295,000) were recorded in 1964–65 and 1965–66 respectively.

World production of barley

In comparison with the barley production of other countries that of Australia is extremely small. The main producers in 1965 were the Union of Socialist Soviet Republics, the United States of America and the United Kingdom. China is also normally a major producer, but details for 1965 are not available. Australian production in that year was approximately 1 per cent of the world total.

According to estimates made by the United States Department of Agriculture, world production of barley in the year 1965 amounted to 4,232 million bushels harvested from 154.0 million acres, equivalent to a yield per acre of 27.5 bushels. This compared with the production of 4,295 million bushels in the previous year from 162.5 million acres, a yield of 26.4 bushels per acre.

Sorghum

Grain sorghum is a summer-growing annual palatable to stock and more drought- and frost-resistant than maize. It requires a summer rainfall. The growing of this crop for grain on an extensive scale is a comparatively recent development in Australia, and, as with other cereals, operations are highly mechanised.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum, and development has so far been restricted mainly to these areas, more particularly to Queensland. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for this purpose. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet). In Queensland the growing of grain sorghum is concentrated in the Burnett, Dawson-Callide areas and in the central highlands. In New South Wales the north western slopes and Murrumbidgee Irrigation Area are the main areas. This crop is also suitable for the semi-tropical areas of the Northern Territory and the Kimberleys.

Particulars of the area and production of sorghum grown for grain in recent years are given in the following table.

GRAIN SORGHUM: AREA, PRODUCTION AND YIELD PER ACRE, STATES 1961-62 TO 1965-66

Year	Area			Production(*a*)			Yield per acre(*a*)		
	N.S.W.	Qld	Aust. (*b*)	N.S.W.	Qld	Aust. (*b*)	N.S.W.	Qld	Aust. (*b*)
	acres	acres	acres	'000 bushels	'000 bushels	'000 bushels	bushels	bushels	bushels
1961–62 .	70,134	292,397	362.666	1,308	8,054	9,361	18.6	27.5	25.8
1962–63 .	80,255	311,068	391,334	1,891	8,361	10,252	23.6	26.9	26.2
1963–64 .	61,203	303,857	365,708	1,269	6,612	7,889	20.7	21.8	21.6
1964–65 .	51,699	292,769	345,737	1,270	5,883	7,164	24.6	20.1	20.7
1965–66 .	99,576	332,768	433,437	605	6,533	7,149	6.1	19.6	16.5

(*a*) 60 lb per bushel. Production in New South Wales and Queensland harvested from crop sown in previous year. (*b*) Includes small areas sown and quantities produced in other States and Territories.

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. For grain, it is grown almost entirely in the south-east and Atherton Tablelands of Queensland and the north coast and northern tablelands of New South Wales. On the Atherton Tablelands in Queensland, and generally in New South Wales and Victoria, it provides a stock feed for dairy cattle, fat stock and pigs. In times of drought it is used also as a sheep feed. In all States except South Australia, however, this crop is grown to some extent for green fodder and silage, particularly in connection with the dairying industry. There is practically no difference between grain and fodder varieties.

There has been a considerable increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialised industry of growing hybrid strains for seed.

Maize area, production and yield per acre

The area, production and yield per acre of maize for grain in each State for the years 1961–62 to 1965–66 compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are given in the following table. Separate details for hybrid and other varieties are shown for all producing States except Western Australia for 1965–66.

MAIZE FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND A.C.T., 1936–37 TO 1965–66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938–39	121,178	19,826	179,641	20	16	..	6	320,687
1948–49	91,612	7,511	122,263	1	87	6	1	221,481
1958–59	57,662	3,629	120,417	(a)	13	1	2	(b)181,724
Year—								
1961–62	51,434	3,309	155,780	..	17	..	..	210,540
1962–63	46,537	3,634	159,285	(a)	34	..	..	(b)209,490
1963–64	44,679	3,399	166,598	(a)	85	..	..	(b)214,761
1964–65	41,660	2,353	168,300	..	10	..	..	212,323
1965–66—								
Hybrid	38,027	1,497	124,862	..	(c)	..	..	(b)164,386
Other	3,973	186	28,219	..	1	..	..	32,379
Total	*42,000*	*1,683*	*153,081*	..	*1*	..	..	*196,765*
PRODUCTION ('000 BUSHELS)(*d*)								
Average for three years ended—								
1938–39	3,204	665	3,170	1	..	..	..	7,040
1948–49	2,446	314	2,960	..	1	..	..	5,721
1958–59	2,347	175	3,428	(a)	..	..	..	(b) 5,950
Year—								
1961–62	2,349	192	4,766	..	..	..	..	7,307
1962–63	2,145	216	5,096	(a)	..	..	..	(b) 7,457
1963–64	2,089	204	4,427	(a)	2	..	..	(b) 6,722
1964–65	1,878	114	4,887	..	..	..	..	6,879
1965–66—								
Hybrid	1,482	94	2,678	..	(c)	..	..	(b) 4,253
Other	125	8	531	..	..	..	..	664
Total	*1,607*	*101*	*3,209*	..	..	..	..	*4,918*
YIELD PER ACRE (BUSHELS) (*d*)								
Average for three years ended—								
1938–39	26.4	33.5	17.6	43.7	12.3	..	10.2	22.0
1948–49	26.7	41.8	24.2	6.7	7.2	14.8	13.7	25.8
1958–59	40.7	48.2	28.5	(a)	16.8	30.0	..	(b) 32.7
Year—								
1961–62	45.7	58.0	30.6	..	21.9	..	..	34.7
1962–63	46.1	59.5	32.0	(a)	12.2	..	..	(b) 35.6
1963–64	46.8	59.8	26.6	(a)	18.5	..	..	(b) 31.3
1964–65	45.1	48.5	29.0	..	15.6	..	..	32.4
1965–66—								
Hybrid	39.0	62.8	21.4	..	(c)	..	..	(b) 25.9
Other	31.5	40.6	18.8	..	60.0	..	..	20.5
Total	*38.3*	*60.3*	*21.0*	..	*60.0*	..	..	*25.0*

(*a*) Not available for publication. (*b*) Incomplete. (*c*) Included in Other maize. (*d*) 56 lb per bushel. Production in New South Wales and Queensland harvested from crop sown in previous year.

The average yield for Australia for the five-year period ended 1965–66 was 31.9 bushels per acre. Among principal producing countries, the United States of America averaged 73.1 bushels per acre and Brazil 18.3 bushels for 1965.

Value of maize crop

The average wholesale price of maize in the Melbourne market in 1965–66 was $2.83 a bushel compared with $1.89 in 1964–65. The estimated gross value of the crop in each State for the 1965–66 season and the value per acre were as follows.

MAIZE FOR GRAIN: VALUE OF CROP, STATES, 1965–66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Aggregate value . . $'000	3,359	121	6,037	..	..	..	9,517
Value per acre . . $	79.98	71.90	39.44	..	..	..	48.37

Exports of maize and maize products

Exports of Australian-produced maize for the years 1961–62 to 1965–66 are shown hereunder.

MAIZE: EXPORTS, AUSTRALIA, 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Quantity	'000 bus	2	552	14	20	1
Value	$'000 f.o.b.	6	480	27	42	4

The increase in exports of maize in 1962–63 was due principally to the shipment of 474,000 bushels to Japan, a country to which there had been no previous exports. Imports of maize into Australia are not recorded separately, but are considered to be negligible.

World production of maize

According to figures issued by the United States Department of Agriculture, world production of maize in the year 1965 amounted to 8,182 million bushels, harvested from 240 million acres, giving an average yield per acre of 34.1 bushels. This compared with production in the previous year of 7,835 million bushels from 248 million acres, and an average yield of 31.6 bushels per acre.

The United States of America is the most important maize-producing country in the world, and during the three years ended 1965 the area sown to maize in that country averaged 58 million acres or 24 per cent of the world total. During the same period production averaged 3,949 million bushels or 49 per cent of the world total.

Rice

The principal rice-growing areas of the world are confined almost entirely to Asia, although limited quantities are grown in other countries. In Australia rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924–25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Areas until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

Until recent years rice-growing in Australia was practically confined to the Murrumbidgee Irrigation Areas in New South Wales. However, there is now some experimental rice-growing in Western Australia and the Northern Territory, but particulars are not available for publication. The bulk of Australia's exports of rice in 1965–66 was shipped to Papua and New Guinea and the Pacific Islands. Details relating to area, production, and Australian-produced exports for the years 1961–62 to 1965–66 are shown in the following table.

RICE: AREA, PRODUCTION AND EXPORTS, AUSTRALIA(*a*) 1961–62 TO 1965–66

Year	No. of holdings growing rice(*b*)	Area	Production (paddy rice)		Average yield (paddy) per acre	Exports(*c*)	
			Quantity	Gross value(*d*)		Uncleaned	Cleaned
		acres	'000 bushels (*e*)	$'000	bushels (*e*)	cwt	cwt
1961–62 . . .	878	50,185	7,045	7,664	140.4	280,540	748,920
1962–63 . . .	956	54,929	7,129	7,676	129.8	239,820	905,580
1963–64 . . .	1,033	59,398	7,455	7,912	125.5	198,820	918,340
1964–65 . . .	1,074	61,617	8,030	8,529	130.3	216,240	1,058,080
1965–66 . . .	893	64,398	9,540	10,224	148.1	228,140	1,042,000

(*a*) Particulars of area and production for Western Australia and the Northern Territory are not available for publication, and are excluded. (*b*) Twenty acres or more in area. (*c*) Imports into Australia are not recorded separately, but are considered to be negligible. (*d*) Excludes the value of straw. (*e*) 42 lb per bushel.

Fodder crops

Hay

Because of the comparatively unreliable nature of rainfall in Australian agricultural and pastoral areas, hay as a fodder crop occupies a position of importance. In 1965–66 hay represented 8 per cent of the total area of crops. Up to 1946-47 hay, in terms of area, was second only to wheat for grain, but in more recent years it has been supplanted by green fodder (for feeding-off) and oats for grain. Hay is generally considered to include cereal hay, meadow hay and lucerne hay. Cereal crops cut early for hay contain a higher level of protein than those cut late.

In most European countries hay is made almost entirely from meadow pastures, but in Australia a very large proportion is made from cereals and lucerne, the hay being stored loose, in sheaves or baled. Because of its bulk, hay is usually produced for individual or local use, except in times of drought, when large inter-regional transfers may take place. Meadow hay requires greater care in preparation than cereal hay. Baling must be spaced carefully behind mowing to ensure that the bales are dry enough to prevent moulding, but not so dry as to result in excessive leaf loss. The leaves contain the bulk of the protein. Lucerne hay requires similar attention.

The area, production and yield per acre of hay of all kinds in the several States during the years 1961–62 to 1965–66 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown below.

HAY: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES 1936-37 TO 1965-66

Season	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
				AREA ('000 ACRES)					
Average for three years ended—									
1938–39	859	1,122	67	540	439	81	..	3	3,111
1948–49	516	642	66	287	245	93	..	3	1,852
1958–59	556	978	64	336	305	129	..	4	2,372
Year—									
1961–62	594	922	95	209	294	157	1	2	2,274
1962–63	587	1,251	87	287	340	165	1	2	2,720
1963–64	584	1,138	80	358	289	150	1	2	2,602
1964–65	600	1,306	82	314	305	180	1	3	2,793
1965–66	733	1,150	155	299	291	148	1	4	2,780
				PRODUCTION ('000 TONS)					
Average for three years ended—									
1938–39	975	1,181	94	591	434	120	..	3	3,398
1948–49	618	987	119	396	275	153	..	4	2,552
1958–59	752	1,712	129	476	377	248	..	7	3,701
Year—									
1961–62	923	1,585	212	286	396	286	..	5	3,693
1962–63	965	2,376	197	406	453	313	1	6	4,717
1963–64	1,006	1,947	184	488	389	249	1	5	4,269
1964–65	1,040	2,506	167	487	390	365	1	7	4,963
1965–66	978	1,873	282	368	414	257	2	5	4,179
				YIELD PER ACRE (TONS)					
Average for three years ended—									
1938–39	1.14	1.05	1.40	1.09	0.99	1.48	..	1.00	1.09
1948–49	1.20	1.54	1.80	1.38	1.12	1.65	..	1.33	1.38
1958–59	1.35	1.75	2.02	1.42	1.24	1.92	0.54	1.75	1.56
Year—									
1961–62	1.55	1.72	2.22	1.37	1.35	1.82	0.76	2.18	1.62
1962–63	1.64	1.90	2.27	1.41	1.33	1.89	1.21	2.38	1.73
1963–64	1.72	1.71	2.30	1.37	1.35	1.67	1.02	1.71	1.64
1964–65	1.73	1.92	2.19	1.55	1.28	2.02	1.11	1.99	1.78
1965–66	1.33	1.63	1.83	1.23	1.43	1.74	1.39	1.29	1.50

Plate 43 shows the area under hay since 1900–01 (page 894).

Information regarding areas cut for hay and varieties grown in 1965–66 is given in the following table.

HAY: AREA OF VARIOUS KINDS GROWN, STATES AND TERRITORIES
1965–66
(Acres)

State or Territory	Oaten	Lucerne	Wheaten	Other	Total
New South Wales . . .	110,595	241,171	135,209	246,220	733,195
Victoria	223,645	83,338	39,771	803,591	1,150,345
Queensland	14,385	89,793	33,542	16,861	154,581
South Australia . . .	111,818	38,135	46,088	102,573	298,614
Western Australia . . .	111,615	1,743	37,681	139,758	290,797
Tasmania	12,847	1,223	384	133,374	147,828
Northern Territory . . .	..	..	..	1,116	1,116
Australian Capital Territory .	992	1,514	12	1,219	3,737
Australia . . .	**585,897**	**456,917**	**292,687**	**1,444,712**	**2,780,213**

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1965–66 were 21.1 per cent for oaten, 16.4 per cent for lucerne, 10.5 per cent for wheaten, and 52.0 per cent for other hay.

The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1965–66 season.

HAY: VALUE OF CROP, STATES 1965–66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
Aggregate value . . . $'000	33,685	40,753	13,792	6,923	8,457	3,991	107,755
Value per acre . . $	45.94	35.43	89.22	23.18	29.08	27.00	38.76

(*a*) Includes $47,000 and $107,000 for the Northern Territory and Australian Capital Territory respectively.

Farm stocks of hay

Particulars of stocks of hay held on farms at 31 March for the years 1962 to 1966 are given in the table below.

STOCKS OF HAY HELD ON FARMS, STATES AND A.C.T.
1962 TO 1966
(Tons)

At 31 March—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.(*a*)
1962 .	1,775,977	1,847,725	231,335	496,564	254,377	305,108	12,241	4,923,327
1963 .	1,609,639	2,197,725	194,948	470,202	273,500	333,650	6,896	5,086,560
1964 .	1,610,063	1,911,475	179,422	547,354	274,812	276,650	5,085	4,804,861
1965 .	1.586,969	2,402.299	145,737	614,451	275,948	414,415	7,606	5,447,425
1966 .	1,158,481	1,915,693	190,659	444,089	291,528	296,196	5,171	4,301,817

(*a*) Excludes the Northern Territory, for which particulars are not available.

Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for overseas trade, and consequently does not figure largely among Australian exports. During 1965–66 exports amounting to 3,304 tons, valued at $153,877, were made, principally to Malaysia, Kuwait and Singapore. There were no imports of hay in 1965–66.

Green fodder

Considerable areas are devoted to the growing of green fodder, usually as an adjunct to cereal operations or as a minor crop in irrigation areas. The areas recorded in respect of green fodder include areas of crops cut for feeding to live stock as green fodder or ensilage, together with areas fed off to stock as green forage. Statistics of green fodder exclude areas which may have been sown with the intention of harvesting for grain, but which, owing to adverse conditions, showed no promise of producing grain or even hay and were fed off to livestock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities of barley, sorghum, maize, rye, and sugar cane are also used in this way. In 1965–66 the area under green fodder (5,324,333 acres) consisted of oats (2,169,435 acres), lucerne (2,097,815 acres), sorghum (192,643 acres), wheat (176,811 acres), barley (151,801 acres), maize (34,179 acres), rye (21,851 acres), sugar cane (4,284 acres), and other crops (475,514 acres). Particulars concerning the area of green fodder in the several States during each of the years 1961–62 to 1965–66 are given in the following table.

GREEN FODDER: AREA, STATES AND TERRITORIES, 1961–62 TO 1965–66

('000 acres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 . .	1,830	539	865	787	622	57	1	1	4,702
1962–63 . .	1,900	478	912	928	668	65	..	1	4,952
1963–64 . .	1,974	431	1,011	972	417	71	..	1	4,877
1964–65 . .	2,397	454	1,111	1,135	446	67	1	1	5,614
1965–66 . .	1,952	526	1,143	1,210	414	78	1	1	5,324

In the 1965–66 season green fodder ranked second to wheat in area of crops throughout Australia. A graph showing the area sown to green fodder appears on plate 43. The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately $25,000,000 for the 1964–65 season and $28,000,000 for the 1965–66 season.

Ensilage

Ensilage is produced from herbage compacted tightly to exclude air and kept from contact with air and extraneous moisture to avoid moulding. Fermentation results in a dark mass of high protein and lactic acid content. Molasses may be added to hasten fermentation. Ensilage may be stored in pits or stacks or in constructed silos.

The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connection with the design of the silos and the cutting and packing of the ensilage. Information regarding production and farm stocks of ensilage for the years 1961–62 to 1965–66 is given in the following table.

ENSILAGE: PRODUCTION AND FARM STOCKS, STATES AND A.C.T. 1961–62 TO 1965–66

(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Production during—								
1961–62 season . .	196,625	261,884	73,838	52,451	51,364	77,781	700	714,643
1962–63 " . .	210,653	295,914	63,489	64,206	48,806	68,117	290	751,475
1963–64 " . .	222,126	252,837	53,160	88,183	37,238	43,760	270	697,574
1964–65 " . .	182,063	250.997	34,440	78,709	26.798	54,438	400	627.845
1965–66 " . .	139,438	228,439	42,886	48,388	30,225	52,802	120	542,298
Farm stocks at—								
31 March 1962 . .	567,801	181,383	139,788	68,614	37,224	60,157	1,305	1,056,272
" " 1963 . .	602,585	263,440	146.286	63,315	37,415	61.110	1,768	1,175,919
" " 1964 . .	565,457	185,115	139,691	78,997	29,709	43,554	1,108	1,043,631
" " 1965 . .	534,730	206,304	112,596	86,093	24,160	49,668	892	1,014,443
" " 1966 . .	365,995	157,134	73,122	58,038	28,293	43,461	291	726,334

Sugar cane

The growing of sugar cane is restricted to those coastal areas in Queensland and northern New South Wales which have suitable climatic and soil conditions.

The Bureau of Sugar Experiment Stations in Queensland and the Colonial Sugar Refining Company Limited render useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilisers, lime, etc. and by producing and distributing improved varieties of cane. In common with these two organisations, Sugar Research Ltd, of Mackay, undertakes technological research in raw sugar milling practices.

Sugar agreements and marketing arrangements in Australia

In Year Book No. 37, pages 940–1, a summary is given of the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement is for the period from 1 September 1961 to 31 August 1968. The Commonwealth Government appointed a Committee of Enquiry in 1960 to investigate all facets of the sugar and canned fruits industries. The Committee presented its report, publication of which was restricted to a summary of conclusions and recommendations, in 1961. There was no variation of the consequent agreement.

Production of sugar is regulated under the terms of the agreement. At the mill level control is exerted by means of seasonal ' mill peaks ' in respect of Queensland mills and a proportionate allowance for New South Wales mills. The combined total equals the estimated requirements of the domestic and export markets. Farm production is regulated according to the limit on the mill which the farm supplies. Up to the end of 1961 exports were limited by the export quota provisions of the International Sugar Agreement, but these provisions have not been operative since then (*see* below).

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and a uniform price paid to mills. In 1963 a Queensland Government Committee of Enquiry recommended that the industry should expand production to 2.26 million tons (of 94 net titre sugar) by 1965–66, of which New South Wales might produce 132,000 tons. This recommendation has been implemented, although seasonal conditions prevented the attainment of the target until 1966–67, when 2,342,000 tons were produced, the New South Wales contribution being 140,000 tons.

International Sugar Agreement

The International Sugar Agreement of 1937 was superseded by the International Sugar Agreements of 1953 and 1958. Details of the 1937 and 1953 Agreements were given in Year Books No. 40, pages 881–2, and No. 48, page 936, respectively. The 1958 Agreement, which came into operation on 1 January 1959, established basic export quotas for exporting countries. The British Commonwealth was allocated a total quota, the distribution of which remained a matter for internal arrangement by the countries and territories concerned (*see* below). The Australian quota for 1960 and 1961 was approximately 651,000 tons per annum.

The quota and price provisions of the International Sugar Agreement were subject to review before 31 December 1961. A conference in Geneva in 1961 failed to reach agreement on quota provisions for 1962 and 1963. The conference adjourned with a resolution that it be reconvened if circumstances became favourable for an agreement on quotas. The principal practical effect of the adjournment of the 1961 conference was that former export limitations on participating exporting countries, including Australia, did not apply until such time as agreement on this question was again reached at a resumed session of that conference or at a newly convened conference.

The question of convening a United Nations conference to consider re-introduction of an agreement with quota provisions was deferred at a meeting of the International Sugar Council in April 1963. The 1958 Agreement, in its restricted form, was extended by protocol until 31 December 1965.

A United Nations conference was convened at Geneva in September 1965. The conference did not negotiate a new agreement but extended the 1958 Agreement, in its currently restricted form, until 31 December 1966. Arrangements for a second session of the conference are being negotiated; pending resumption of the Conference, the restricted Agreement has been further extended until 31 December 1968.

British Commonwealth Sugar Agreement

On 1 January 1953 the British Commonwealth Sugar Agreement became effective. This agreement, which has been extended to 1974, provides for Australia to export to preferential markets a maximum of 600,000 tons per annum. Of the 600,000 tons, 335,000 tons are purchased by the United Kingdom Government at a regularly negotiated price and the balance may be sold at world market prices plus tariff preferences where applicable. The negotiated price of £Stg42 a ton bulk f.o.b. and stowed payable for Australian raws in 1965 was increased to £Stg43 10s. a ton for 1966, 1967 and 1968.

Fruit Industry Sugar Concession Committee and sugar rebates

The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

Until 15 May 1960 a rebate of $4.40 a ton of refined sugar used in processing approved fruit products was paid to Australian manufacturers, provided they bought fresh fruit at prices not lower than those declared by the Committee as reasonable. This was increased to $10 a ton from 16 May 1960.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for the Australian sugar content than the price for which the cheapest imported sugar could be landed duty free in Australia. The

Queensland Government is responsible for payment of a similar rebate to exporters of other approved products. Payment of the export sugar rebate in respect of approved fruit products has been made conditional upon such fruit having been purchased at not less than the prices (if any) which the Committee has declared to be reasonable at the time of purchase.

Under the Sugar Agreement for 1961–68 the Queensland Government contributes to the fund $528,000 annually, reimburses the Committee for the actual expenditure on export sugar rebates, and, by a supplementary agreement operating from 1 September 1962, pays the Committee an additional sum equal to the amount payable by way of domestic sugar rebate in respect of the products exported. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for research for the purpose of increasing the yield per acre of Australian fruit, or of obtaining information regarding Australian fresh marketable fruits.

Financial assistance to the sugar industry

In September 1966 the Commonwealth Government arranged a loan of $19 million through the Queensland Government to the sugar industry to raise returns from sales of the No. 1 Pool in the 1966 season to a level comparable with that received in the 1965 season.

The money was advanced, initially, by the Reserve Bank to the Queensland Sugar Board in October 1966, but the arrangement provided that after 1 July 1967 the Commonwealth Government would provide the Queensland Government with a repayable grant sufficient to meet its obligations to the Reserve Bank.

The grant will be repayable over ten years commencing in mid-1970, and will not be subject to interest before then. Thereafter it will incur interest at the medium term bond rate prevailing when the grant was made.

The *Sugar Marketing Assistance Agreement Act* 1967 gives effect to this arrangement.

Bulk handling of sugar

The total conversion of the Australian sugar industry to bulk handling and mechanised loading and unloading of raw sugar has now been accomplished, except for the operation of a bagging station specially provided at Townsville to meet the needs of a few overseas customers. Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958, at Townsville in 1959, at Mourilyan in 1960, and at Cairns in 1964. A second storage shed at Bundaberg, a third shed at Mackay and second sheds at Lucinda and Townsville have been opened subsequently. The comparatively small New South Wales sugar industry was converted to bulk handling in 1954. Bulk receiving facilities are in operation at all Australian refineries.

Area of sugar cane

A brief outline of the development of the industry was included in earlier issues of the Year Book (*see* No. 38, page 985). The area of sugar cane in Australia for the seasons 1961–62 to 1965–66 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown in the following table. The areas shown in the table do not include the small acreage cut for green fodder, which in 1965–66 amounted to 4,284 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and 'stand-over' cane as well as a small quantity required for plants.

SUGAR CANE: AREA(*a*), STATES, 1936-37 TO 1965-66

(Acres)

Period	New South Wales			Queensland			Australia			
	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Total
Average for three years ended—										
1938–39 .	10,468	10,366	n.a.	247,632	89,690	n.a.	258,100	100,056	n.a.	n.a.
1948–49 .	7,687	8,666	338	230,905	90,448	12,891	238,592	99,114	13,229	350,935
1958–59 .	11,094	9,462	619	360,709	110,786	12,596	371.803	120,248	13,215	505,266
Year—										
1961–62 .	14,655	11,299	482	372,223	87,831	12,339	386,878	99,130	12,821	498,829
1962–63 .	14,109	12,656	495	387,477	80,438	11,313	401,586	93,094	11.808	506,488
1963–64 .	15,508	14,204	594	402,060	93,149	13,205	417,568	107,353	13,799	538,720
1964–65 .	19,429	17,043	728	450,956	126.906	12.896	470,385	143,949	13,624	627,958
1965–66 .	15,824	23,350	668	487,375	105,361	14,243	503,199	128,711	14,911	646,821

(*a*) Excludes areas cut for green fodder and small area sown in Western Australia.

Production of cane and sugar

The production of sugar cane in 1965–66 was 14.2 million tons, 6.1 per cent below the record level of 15.1 million tons in 1964–65. A graph showing the production of sugar appears on page 995 of Year Book No. 49.

In the following table production data relating to cane and raw sugar are shown for the seasons 1961–62 to 1965–66 together with averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

SUGAR CANE: PRODUCTION OF CANE AND RAW SUGAR, STATES 1936-37 TO 1965-66

(Tons)

Period	New South Wales		Queensland		Australia	
	Cane	Sugar(*a*)	Cane	Sugar(*a*)	Cane	Sugar(*a*)
Average for three years ended—						
1938–39 .	324,531	43,419	5,215,217	760,994	5,539,748	804,413
1948–49 .	283,613	35,444	4,767,291	700,053	5,050,904	735,497
1958–59 .	356,324	43,881	9,221,497	1,260,564	9,577,821	1,304,445
Year—						
1961–62 .	555,858	67,448	9,020,734	1,315,393	9,576,592	1,382,841
1962–63 .	637,310	79,733	12,098,582	1,770,084	12,735,892	1,849,817
1963–64 .	617,402	75,980	11,500,672	1,648,273	12,118,074	1,724,253
1964–65 .	784,126	95,195	14,286,350	1,854,883	15,070,476	1,950,078
1965–66 .	609,320	69,989	13,545,719	1,883,364	14,155,039	1,953,353

(*a*) Raw sugar at 94 net titre.

Owing to climatic variations the crop in New South Wales matures in from twenty to twenty-four months, whereas in Queensland a period of from twelve to sixteen months is sufficient. The average yields of cane and sugar per acre for the years 1961–62 to 1965–66 and for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown below. Allowance should be made in interpreting these figures for the disparity in maturing periods noted above.

SUGAR CANE AND SUGAR: YIELD PER ACRE, STATES, 1936–37 TO 1965–66

(Tons)

Period	New South Wales			Queensland			Australia		
	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar
Average for three years ended—									
1938–39	31.00	4.15	7.47	21.06	3.07	6.85	21.46	3.12	6.89
1948–49	36.90	4.61	8.00	20.65	3.03	6.81	21.17	3.08	6.87
1958–59	32.12	3.96	8.12	25.57	3.49	7.32	25.76	3.52	7.34
Year—									
1961–62	37.93	4.60	8.24	24.23	3.53	6.86	24.75	3.57	6.93
1962–63	45.17	5.65	7.99	31.22	4.57	6.84	31.71	4.61	6.88
1963–64	39.81	4.90	8.13	28.60	4.10	6.98	29.02	4.13	7.03
1964–65	40.36	4.90	8.24	31.68	4.11	7.70	32.04	4.15	7.73
1965–66	38.51	4.42	8.71	27.79	3.86	7.19	28.13	3.88	7.25

Production and utilisation of sugar

Details of the production and utilisation of sugar for the years 1961–62 to 1965–66 are shown below. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

SUGAR: PRODUCTION AND UTILISATION, AUSTRALIA
1961–62 TO 1965–66

Year	Changes in stocks(*a*)	Production (raw)	Exports (*b*)	Miscellaneous uses(*c*)	Consumption in Australia(*d*)	
					Total	Per head
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
1961–62 . .	− 4.8	1,404.2	862.5	18.0	528.5	111.7
1962–63 . .	+111.9	1,831.6	1,175.8	17.8	526.1	109.1
1963–64 . .	− 65.3	1,648.7	1,156.0	21.3	536.7	109.2
1964–65 . .	− 4.0	1,880.0	1,308.2	20.1	555.7	110.9
1965–66 . .	+ 84.1	1,961.8	1,288.9	20.2	568.7	111.3

(*a*) Includes allowance for estimated sugar content of imported foodstuffs. (*b*) Includes sugar content of manufactured products exported. (*c*) Includes refining losses and quantities used in golden syrup and treacle. (*d*) Includes sugar content of manufactured products consumed.

The quantity of sugar recorded as used in factories in 1965–66 amounted to 377,708 tons compared with 359,596 tons in 1964–65 and 308,304 tons in 1963–64. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1965–66 consumption by factories engaged in the production of jams, jellies and preserved and dried fruit amounted to 82,042 tons, by those producing confectionery, ice cream, etc. to 69,366 tons, by breweries to 49,198 tons, and by factories producing aerated waters, cordials, etc. to 55,811 tons.

Sugar by-products

Industrial chemicals, together with large quantities of molasses, are produced as by-products in sugar mills. Further, during the period 1939 to 1960 building boards were made from the residue of crushed fibre after removal of the sugar content from sugar cane. These boards possessed high insulating and sound absorbing properties which made them particularly suitable for use in walls and ceilings. Early in the period referred to, the boards were manufactured almost entirely from crushed fibre residue, the remaining component being non-millable pine, but gradually the pine content was increased until by 1960 fibre residue was no longer being used. The main purpose for which crushed cane fibre residue is now used is furnace fuel in sugar mills.

Sugar prices and returns

The current prices of sugar in Australia (as determined under the Sugar Agreement in Australia—*see* page 926) and details of net returns for raw sugar from 1961–62 to 1965–66 are shown in the following tables.

SUGAR: PRICES IN AUSTRALIA

Year	Raw sugar, 94 net titre			Refined sugar		
	Average return per ton received by millers and growers for—			Date of determination	Wholesale price to retailer per ton	Retail price, capital cities per lb
	Home consumption	Exports(*a*)	Whole crop (*a*)			
	$	$	$		$	$
1961 . .	124.95	75.50	96.43			
1962 . .	125.10	82.18	95.98	16.5.60 to 18.6.67	180.52	0.092
1963 . .	122.00	131.22	127.97	19.6.67	206.72	0.105
1964 . .	120.75	83.89	95.78			
1965 . .	121.95	67.27	85.14			

(*a*) Includes 'excess' sugar.

RAW SUGAR(*a*): NET RETURNS, AUSTRALIA, 1961–62 TO 1965–66

(*Source:* The Queensland Sugar Board)

Year	Proportion exported	Net value of exports per ton	Average price per ton for whole crop	Estimated value of crop
	per cent	$	$	$'000
1961–62	57.66	75.50	96.43	133,306
1962–63	67.85	82.18	95.98	177,496
1963–64	64.70	131.22	127.97	220,520
1964–65	67.76	83.89	95.78	186,728
1965–66	67.31	67.27	85.14	166,270

(*a*) 94 net titre.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated comprise the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but including concessions to the fruit industry and other rebates which in 1965–66 amounted to $3,426,000. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent and 30 per cent respectively.

Exports of sugar

Particulars of the exports of Australian-produced cane sugar (raw and refined) for each year from 1961–62 to 1965–66 are as follows.

RAW AND REFINED SUGAR: EXPORTS, AUSTRALIA, 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66
Quantity . . . . tons	843,537	1,145,966	1,116,190	1,269,139	1,252,575
Value . . $'000 f.o.b.	67,790	91,042	156,512	112,682	93,926

Tobacco

Tobacco is a summer-growing annual which requires a temperate to tropical climate, adequate soil moisture and a frost-free period of approximately five months. In Australia almost all tobacco is grown under irrigation. Because of specialised requirements, commercial production is restricted mainly to river valleys where suitable light friable soil types are found. Grown in the three eastern States of Australia, the centres of production include Mareeba (northern Queensland), Bundaberg (central coastal Queensland), Beerwah (Glasshouse Mountains, Queensland), Texas (south-western Queensland), Ashford (north-western New South Wales), Myrtleford (north-eastern Victoria), and Gunbower (northern Victoria). All tobacco produced in Australia is of the flue-cured type. The main variety grown is Hicks.

Marketing

Between 9 May 1941 and 24 September 1948 all leaf was under the direct control of the Australian Tobacco Board, and prices were paid on leaf appraisal. Subsequently the Board was disbanded, and sales have been by open auction through the Tobacco Leaf Marketing Board (Queensland and northern New South Wales) and the Victorian Tobacco Growers Association

Ltd (southern New South Wales and Victoria). In 1964 the Victorian Tobacco Leaf Marketing Board was set up to market the portion of the crop that was formerly sold by the Victorian Tobacco Growers Association Ltd, and in 1965 a Board was established in New South Wales. However, the actual physical handling of New South Wales leaf at auction will continue to be carried out by the Queensland and Victorian authorities.

A stabilisation plan for the tobacco growing industry was agreed between Commonwealth and State Governments in 1965. The plan, which will operate initially for four years, commenced with the 1965 selling season. It provides broadly for the establishment of an annual marketing quota of 26 million pounds (green weight) of leaf which is sold under an agreed grade and price schedule providing for an average minimum price, based on a normal crop fall-out. The overall marketing quota is divided among tobacco-producing States and the State quotas are in turn divided among individual growers.

The plan is administered by the Australian Tobacco Board, constituted under the *Tobacco Marketing Act* 1965–1966 and representative of the Commonwealth, tobacco-producing States, growers, and manufacturers.

The average minimum price for the 1967 season, i.e. 109.4 cents per lb, is unchanged from the previous season.

Central Tobacco Advisory Committee

The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State Governments. Its main functions were to review the industry and make recommendations on its problems. The Committee was reconstituted by the Agricultural Council during 1952–53.

In 1955 the Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at $336,000, of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. Annual contributions are made to a fund by the Commonwealth and State Governments and tobacco growers and manufacturers. A Tobacco Industry Trust Account was established under the *Tobacco Industry Act* 1955 to receive these contributions. The contributions from growers and manufacturers are obtained under the Tobacco Charges Assessment Act and the Tobacco Charges Acts, whose purpose is to provide funds to be used in research and otherwise with a view to fostering and expanding the Australian tobacco industry. This programme commenced in 1956, and since then $3,970,512 has been paid to State and Commonwealth departments for expenditure on tobacco research and extension. The allocation for 1966–67 was $710,664. As from 1 July 1964 the annual Commonwealth contribution has been increased to one-half of approved expenditure from the Tobacco Industry Trust Account. In 1961 a Research Sub-Committee was established to review annually scientific programmes and finance in relation to the Tobacco Industry Trust Account and make recommendations to the Central Tobacco Advisory Committee. However, following the establishment of the Australian Tobacco Board, the Australian Agricultural Council in 1966 abolished this sub-committee and reconstituted the Central Tobacco Advisory Committee with the following terms of reference:

> 'To make recommendations annually to the Australian Agricultural Council, through the Standing Committee on Agriculture, regarding research and extension programmes to be financed from the Tobacco Industry Trust Account.'

Other assistance and research

Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30 June 1953 are given in Year Book No. 40, pages 895–6, and in previous issues.

The Commonwealth Scientific and Industrial Research Organization and the State Departments of Agriculture in the tobacco growing States are carrying out investigations into a wide range of problems involving fundamental research, plant breeding, variety trials, irrigation, disease and pest control, fertilisers, crop rotation, and cultural practices.

Tobacco factories

Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. Since November 1946 these percentages have been increased from 3 per cent for cigarettes and 5 per cent for tobacco to 43 per cent and 40 per cent respectively from 1 July 1962. The percentage applicable to both cigarettes and tobacco from 1 July 1963 was 40 per cent and from 1 July 1964, 41.5 per cent. The rate was increased quarterly from 1 April 1965 to 1 January 1966, from which date onwards it has been set at 50 per cent for both cigarettes and tobacco.

In 1965–66 the quantity of cured leaf recorded as used in tobacco factories in Australia amounted to 49 million lb, of which 23 million lb was of local origin. The balance was imported, chiefly from the United States of America and Rhodesia.

Tobacco area and production

The area of tobacco in 1965–66 was 20.1 per cent below the record area established in 1962–63. Production at 27,361,000 lb was 20.3 per cent below the record established in 1963–64.

In the following table particulars of the area and production of tobacco are given by States for each of the seasons 1961–62 to 1965–66, together with averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

TOBACCO: AREA AND PRODUCTION, STATES AND N.T., 1936–37 TO 1965–66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938–39	697	4,262	3,842	77	1,055	134	..	10,067
1948–49	415	1,046	1.948	..	609	..	..	4,018
1958–59	1,257	3,478	7,479	..	1,295	..	..	13,509
Year—								
1961–62	3,078	9,286	14,069	..	194	..	..	26,627
1962–63	3,163	9,844	16,346	..	28	..	..	29,381
1963–64	2,927	10,519	15,579	..	..	..	..	29,025
1964–65	2,546	9,720	14.042	..	..	..	..	26.308
1965–66	1,742	9,230	12,509	..	..	..	..	23,481
PRODUCTION OF DRIED LEAF ('000 lb)								
Average for three years ended—								
1938–39	471	1,603	2,173	17	741	104	..	5,109
1948–49	380	670	1,725	..	523	..	..	3,298
1958–59	1,066	3,770	5,563	..	1,016	..	..	11,415
Year—								
1961–62	3,116	6,515	12,751	..	196	..	..	22,578
1962–63	2,885	9,447	14,787	..	29	..	..	27,148
1963–64	2,652	14,459	17,231	..	..	..	..	34,342
1964–65	2,356	12,080	10,675	..	..	..	..	25,111
1965–66	1,698	11,083	14,580	..	..	..	..	27,361

Imports and exports of tobacco

Imports of tobacco and tobacco manufactures into Australia during 1965–66 were valued at $26.2 million. This included 27.9 million lb of unmanufactured tobacco valued at $20.1 million. Exports of tobacco and tobacco manufactures during 1965–66 were valued at $2,003,000, including Australian produce, $1,443,000.

Cotton

This annual shrub requires a hot climate and inter-row weed control. Lint (long fibres) is extracted from the seed cotton in the ginneries and is used for yarn. The residue, consisting of linters (short fibres), kernels and hulls (outer seed coat), is treated in oil mills. From linters and kernels are produced such items as short-fibred cotton, cotton seed oil for human consumption and industrial purposes, and meal cakes for stock feed. The hulls may be used as fuel.

The production of cotton in Australia was formerly restricted mainly to the coastal river valleys of Queensland. In recent years, however, the Namoi River area of New South Wales has emerged as the predominant growing area, while smaller quantities are grown in the Murrumbidgee Irrigation Area. The Ord River district in Western Australia is also becoming an increasingly important cotton producer. The extension of areas of cotton under irrigation in these regions has resulted in greatly increased yields.

Cotton bounty

For particulars of the *Cotton Bounty Act* 1951 and amendments of 1952, 1955 and 1957, *see* page 1044 of Year Book No. 49. Under the *Raw Cotton Bounty Act* 1963–1966 the Commonwealth pays a bounty on raw cotton produced and sold for use in Australia at the rate of 13.4375 cents per lb for Middling 1″ White, with premiums and discounts on grades and staples above and below, up to a maximum of $4 million in any one year. The bounty is for a period of five years from 1 January 1964.

Cotton area and production

The area under cultivation and the production in the several States for the years 1961–62 to 1965–66 are shown below.

COTTON: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (ACRES)									
1961–62	1,956	(*a*)	26,888	..	(*a*)	..	..	..	(*b*)28,844
1962–63	2,359	(*a*)	35,330	..	(*a*)	..	(*a*)	..	(*b*)37,689
1963–64	10,947	..	28,465	..	1,526	..	..	..	40,938
1964–65	18,897	(*a*)	13,550	..	5,475	..	..	..	(*b*)37,922
1965–66	33,176	(*a*)	13,455	..	8,307	..	..	..	(*b*)54,938
PRODUCTION (UNGINNED) ('000 lb)									
1961–62	532	(*a*)	10,366	..	(*a*)	..	..	..	(*b*)10,948
1962–63	2,993	(*a*)	12,769	..	(*a*)	..	(*a*)	..	(*b*)15,762
1963–64	8,167	..	7,943	..	2,114	..	..	..	18,223
1964–65	45,951	(*a*)	6,268	..	10,790	..	..	..	(*b*)63,009
1965–66	103,280	(*a*)	10,138	..	20,431	..	..	..	*b* 133,850
YIELD PER ACRE (lb)									
1961–62	298	(*a*)	386	..	(*a*)	..	..	..	(*b*) 380
1962–63	1,269	(*a*)	361	..	(*a*)	..	(*a*)	..	(*b*) 418
1963–64	746	..	279	..	1,385	..	..	..	445
1964–65	2,432	(*a*)	463	..	1,971	..	..	..	(*b*) 1,662
1965–66	3,113	(*a*)	754	..	2,460	..	..	..	(*b*) 2,436

(*a*) Not available for publication. (*b*) Incomplete; *see* individual States.

NOTE. Production in Queensland relates to the crop harvested in the first of the years mentioned in column 1, and in other States to the year following: e.g., for 1965–66, the Queensland crop was harvested during 1965, while the crop in other States was harvested during 1966.

Production of ginned cotton for 1961–62 was 3,830,000 lb: 1962–63, 5,403,000 lb; 1963–64, 6,570,000 lb; 1964–65, 17,286,000 lb; and 1965–66, 40,885,000 lb.

The gross value of unginned cotton for the five years ended 1965–66 was $1,294,000; $1,876,000; $2,212,000; $7,685,000; and $14,323,000 respectively.

Imports of raw cotton (excluding linters) during the past five years were: 1961–62, 37,735,000 lb; 1962–63, 42,543,000 lb; 1963–64, 56,663,000 lb; 1964–65, 55,474,000 lb; and in 1965–66, 32,096,000 lb.

Peanuts

Peanuts, or groundnuts, are a sub-tropical legume (and hence summer growers), the pods of which mature beneath the surface of the soil. They thus require well drained, light textured soils. At harvest the plant is pulled, wind-rowed, field-cured for two to four weeks, and then threshed to recover the pods. The main products of the industry are nuts, peanut oil, oil cake, and synthetic protein fibre.

The production of peanuts in Australia is confined mainly to Queensland, although small quantities are grown in New South Wales, the Northern Territory and, in some years, Western Australia. Details of the area and production of peanuts are given in the following table for the years 1961–62 to 1965–66.

PEANUTS: AREA AND PRODUCTION, STATES AND N.T., 1961-62 TO 1965-66

Year	Area (acres)				Production (cwt)			
	N.S.W.	Qld	N.T.	Aust.(*a*)	N.S.W.	Qld	N.T.	Aust.(*a*)
1961–62	573	33,131	307	34,011	6,003	292,267	1,343	299,613
1962–63	395	35,552	(*b*)	*c* 35,947	4,258	315,144	(*b*)	*c* 319,402
1963–64	478	44,482	(*b*)	*c* 44,960	4,744	455,982	(*b*)	*c* 460,726
1964–65	400	45,554	(*b*)	*c* 45,954	4,746	202,369	(*b*)	*c* 207,115
1965–66	394	57,298	16	57,708	4,468	543,735	76	548,279

(*a*) Excludes, for some of the years shown, Western Australia, for which details are not available for publication. (*b*) Not available for publication. (*c*) Incomplete; excludes Northern Territory.

The gross value of the 1965–66 crop was $5,289,000 which was approximately $3,085,000 more than in 1964–65. All production is consumed in Australia. In recent years considerable quantities of peanut kernels have been imported. Total supplies available for consumption in Australia in 1965–66 were 14,072 tons (in shell equivalent), after allowing for an increase of 9,360 tons in stock held by the Peanut Marketing Board and exports of 64 tons of peanuts and peanut products. Supplies were made up of 18,675 tons from Australian production received into store by the Board and 11,321 tons imported.

Flax

Flax for linseed

Prior to 1948–49 the growing of flax for linseed oil had not been developed extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements. The main producing areas are the Darling Downs in Queensland, the wheat belt of New South Wales, and the western and north-eastern districts of Victoria.

The question of assistance to the industry was investigated by the Commonwealth Tariff Board in 1953, and its conclusions are contained in its Report on *Linseed and Linseed Products* dated 23 October 1953.

Particulars of area and production of flax for linseed, by States, are given in the following table for the years 1961–62 to 1965–66. The significant reduction in area in 1965–66 was attributable to over-production in 1964–65.

FLAX FOR LINSEED: AREA AND PRODUCTION, STATES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Area (acres)—						
1961–62	7,266	17,711	34,390	1,513	1,253	62,133
1962–63	11,493	25,232	58,493	1,220	626	97,064
1963–64	15,335	16,240	83,336	1,002	1,588	117,501
1964–65	23,769	9,953	97,092	898	2,135	133,847
1965–66	3,658	7,370	12,266	1,196	97	24,587
Production (tons of linseed)—						
1961–62	856	6,093	5,187	275	178	12,589
1962–63	2,634	8,180	14,477	290	136	25,717
1963–64	3,722	4,758	20,342	283	411	29.516
1964–65	8,761	2,671	34,175	426	567	46,600
1965–66	213	2,538	2,895	403	15	6,064

Flax for fibre

This crop was grown only in Victoria and Western Australia until 1963–64, when no production was recorded in Victoria. In 1964–65, Western Australia was again the only State growing flax for fibre, 1,388 tons being harvested from 729 acres. There was no production of flax for fibre recorded in 1965–66.

Hops

Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon wire and coir trellises, from which they are later harvested, principally by hand. The green hops are kiln-dried and bleached with sulphur dioxide fumes, following which the cured hops are pressed into bales.

Hop growing in Australia is confined to the Derwent, Huon and Channel areas of Tasmania and the Ovens and King Valleys in Victoria. A small area is also under hops in Western Australia, near Manjimup, but the details are not available for publication.

Production and imports of hops

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1961–62 to 1965–66. Exports of hops are negligible and are not recorded separately.

HOPS: PRODUCTION AND DISPOSAL, AUSTRALIA 1961-62 TO 1965-66

Year	Production(*a*)		Imports	Net available supplies (*b*)	Quantity used in breweries
	Quantity	Gross value			
	cwt	$'000	cwt	cwt	cwt
1961–62	32,936	2,484	5,569	38,505	39,064
1962–63	33,629	2,570	1,337	34,966	38,202
1963–64	19.858	1,534	536	20,394	37,033
1964–65	27,893	2,372	9,521	37,414	39,517
1965–66	37,394	3,020	12,696	50,090	35,223

(*a*) Excludes production in Western Australia, for which details are not available for publication. (*b*) Disregards movements in stocks.

Safflower

The cultivation of safflower in Australia has developed rapidly in recent years to make it one of the major oilseed crops. It is best cultivated, either in the warm temperate zones or as a winter crop in the tropical or sub-tropical regions, on moderately fertile, weed-free, clay or sandy loams. Adequate moisture is required up to the flowering stage, after which it is relatively drought resistant. The soil preparation and sowing techniques are similar to those employed for small grains; it is usually harvested by combine when the seed is hard and dry. The oil, produced by crushing, is used in the manufacture of margarine, soaps, paints, varnishes, enamels, and textiles.

Queensland is the main producer of safflower where suitable growing conditions exist particularly in the marginal wheat regions of Dawson-Callide Valleys, Fitzroy Basin, Central Highlands, and the Darling Downs. Suitable growing conditions also exist in New South Wales, Victoria and Western Australia, but, at present, production in these areas is relatively small.

Particulars of the area and production of safflower for the years 1961–62 to 1965–66 are given in the following table.

SAFFLOWER: AREA AND PRODUCTION, STATES AND TERRITORIES 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (*a*)
				AREA (ACRES)					
1961–62	(*b*)	..	8,952	..	(*b*)	..	..	..	8,952
1962–63	(*b*)	..	5,694	..	(*b*)	..	..	..	5,694
1963–64	113	(*b*)	18,141	..	1,125	..	..	..	19,379
1964–65	2,253	1,902	43,350	(*b*)	4	..	..	..	47,509
1965–66	2,539	935	56,727	(*b*)	75	..	..	..	60,276
				PRODUCTION (BUSHELS)(*c*)					
1961–62	(*b*)	..	85,680	..	(*b*)	..	..	..	85,680
1962–63	(*b*)	..	90,021	..	(*b*)	..	..	..	90,021
1963–64	1,546	(*b*)	275,106	..	26,387	..	..	..	303,039
1964–65	33,373	20,218	643,524	(*b*)	280	..	..	..	697,395
1965–66	13,941	11,738	522,810	(*b*)	1,070	..	..	..	549,559

(*a*) Incomplete; *see* individual States. (*b*) Not available for publication. (*c*) 40 lb per bushel.

Imports of crude safflower seed oil in 1964–65 and 1965–66 totalled 781,000 gallons and 873,000 gallons respectively. These imports came mainly from the United States of America.

Vegetables for human consumption

Area, production and trade

Vegetables were initially grown on a large scale near the main cities, where there was ready access to reliable water supplies and to markets. Later, the expansion of irrigation areas and improvement in transport services resulted in their production being extended into many other areas. At present, because of the wide diversity of climatic conditions across Australia, supplies for main city markets are drawn from widely different areas, depending upon the times of maturity of the various crops. Apart from potatoes and onions, which are sold in some States through marketing boards, the bulk of vegetable trading takes place at the metropolitan markets of the cities concerned.

Details of the areas planted and production of individual kinds of vegetables are shown on page 937 for the seasons 1963–64 to 1965–66. Certain particulars shown are incomplete in that details for specific vegetables in some States are either not available or are not available for publication. For further information *see* the bulletin *Rural Industries*. Details of the estimated consumption of vegetables for a series of years ending 1965–66 are given in the chapter Miscellaneous.

FRESH VEGETABLES FOR HUMAN CONSUMPTION: AUSTRALIA
1963-64 TO 1965-66

Vegetable	1963-64		1964-65		1965-66	
	Area sown	Production	Area sown	Production	Area sown	Production
	acres	tons	acres	tons	acres	tons
Asparagus	3,994	6,197	4,067	5,390	3,976	5,957
Beans, French and runner .	17,969	33,065	16,692	30,302	17,319	30,434
Beans, navy . . .	5,423	1,026	3,430	710	3.400	242
Beetroot	1,859	14,432	1,893	16,519	2,081	17,248
Cabbages and brussel sprouts	6,190	66.147	5.959	65,914	5,915	69,134
Carrots	5,446	58.478	5,591	62.629	5,922	67,833
Cauliflowers . . .	6,631	72,677	6,941	74,262	6,511	73,967
Celery	740	12,288	756	13,025	769	12,803
Cucumbers . . .	1,679	7,790	1,588	8,115	1,913	8,710
Lettuce	4,823	21,991	4,710	22,386	4,976	23,303
Onions	9,222	59,278	9,707	69,701	8,250	58,124
Parsnips	1,316	12,698	1,314	13,311	1,336	13,766
Peas, blue	5,165	2,656	3,973	2,718	5,502	2,741
Peas, green . . .	50,971	74,229	57.948	100,603	66,938	102.661
Potatoes	101,987	562,032	87,919	508,019	96,311	638,976
Tomatoes	16,356	135,815	16,315	147,194	16,705	159,707
Turnips, swede and white .	1,418	9,380	1,255	8,179	1,893	8,373
All other	35,651	..	35,520	..	39,662	..
Total	**276,840**	..	**265,578**	..	**289,378**	..

Processed vegetables

Total production of canned vegetables in 1965-66 amounted to 180,098,000 lb: the principal types produced being green peas (including mint-pro peas), 38,786,000 lb; green beans, 9,593,000 lb; baked beans (including pork and beans), 41,151,000 lb; asparagus, 10,006,000 lb; beetroot, 30,159,000 lb; and mushrooms, 9,098,000 lb.

The production of dehydrated vegetables, including split peas, during 1965-66 amounted to 16,573,000 lb, while the production of potato crisps, chips and flakes was 16,427,000 lb.

There has been rapid development in the quick-frozen vegetable industry. Data were collected for the first time in 1957-58, when 13,846,000 lb of frozen vegetables were produced, made up principally of 10,131,000 lb of peas and 2,540,000 lb of beans. In 1965-66 production had risen to 98,885,000 lb, of which 67,691,000 lb were peas and 14,982,000 lb were beans.

Exports and imports of vegetables

The quantity and value of overseas exports of pulse and fresh (including fresh frozen) vegetables during 1965-66 were respectively: pulse, 8,958 tons, $660,492; onions, 1,609 tons, $171,844; potatoes, 10,064 tons, $626,230; other vegetables, 5,443 tons, $1,041,135. Imports of pulse amounted to 9,075 tons, valued at $1,566,000, while imports of fresh and frozen vegetables in total were 13,119 tons, valued at $2,232,000.

In 1965-66 exports of vegetables preserved in liquid consisted of: asparagus, 991,325 lb, $303,148; beans (including baked), 291,179 lb, $43,208; peas, 241,406 lb, $34,432; tomatoes, 361,460 lb, $55,357; other vegetables, 522,753 lb, $112,228. Exports of vegetables otherwise prepared amounted to 82,375 lb, valued at $50,494.

Potatoes

This crop requires deep friable soils, which in Australia are usually basaltic, alluvial or swampy in origin. Fertiliser requirements, which are generally high, vary with the type of soil. Potatoes are killed by heavy frost, but require only moderate temperatures for growth. Mechanical planters and diggers are used to a variable extent depending upon a variety of factors including terrain, state of the soil and scale of operations. Seed certification schemes, which operate in all States except Queensland, provide a supply of seed which is free from viral, fungal and bacterial diseases. In Australia potatoes are used almost entirely for human consumption and not for the production of starch or alcohol. They are rarely used as stock feed.

Potatoes

Area, production, and yield per acre. Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. Until 1958–59 Tasmania (where production is mainly in the north-west) came next in order of acreage sown, although production exceeded that of Victoria in some of the war years. Since then, however, acreage in New South Wales and Queensland has increased considerably, and there is now a greater area of potatoes in both of these States than in Tasmania. In New South Wales production is chiefly in the tablelands districts.

The area sown, production and yield per acre of potatoes in each State during the years 1961–62 to 1965–66 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown hereunder. A graph showing production since 1935–36 appears on page 996 of Year Book No. 49.

POTATOES: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES, 1936–37 TO 1965–66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (ACRES)									
Average for three years ended—									
1938–39	21,049	40,376	11,551	4,445	4,627	32,044	..	59	114,151
1948–49	20,440	53,862	10,795	6,084	6,753	38,643	..	103	136,680
1958–59	16,589	45,225	12,980	6,035	7,977	19,002	4	94	107,906
Year—									
1961–62	20,209	36,469	14,466	5,316	6,824	11,129	(*a*)	30	*b* 94,443
1962–63	27,420	43,024	16,994	5,918	6,499	13,839	6	42	113,742
1963–64	24,352	39,626	15,886	5,459	5,835	10,806	(*a*)	23	*b* 101,987
1964–65	20,530	32,931	14,005	5,247	5,797	9,393	(*a*)	16	*b* 87,919
1965–66	21,913	34,333	16,080	5,748	6,229	11,993	1	14	96,311
PRODUCTION (TONS)									
Average for three years ended—									
1938–39	52,158	137,583	17,191	20,342	23,678	109,285	..	143	360,380
1948–49	62,701	191,590	26,470	32,149	38,722	148,389	..	598	500,619
1958–59	68,533	245,937	50,989	48,072	50,024	92,367	5	391	556,318
Year—									
1961–62	83,301	196,032	70,675	48,479	55,700	71,560	(*a*)	234	*b* 525,981
1962–63	132,969	254,473	86,239	53,253	56,900	82,545	5	212	666,596
1963–64	98,308	200,384	90,201	51,195	55,402	66,420	(*a*)	122	*b* 562,032
1964–65	75,659	183,665	82,389	48,400	60,739	57,062	(*a*)	105	*b* 508,019
1965–66	104,623	240,786	97,744	56,471	62,865	76,400	4	83	638,976
YIELD PER ACRE (TONS)									
Average for three years ended—									
1938–39	2.48	3.41	1.49	4.58	5.12	3.41	..	2.42	3.16
1948–49	3.07	3.56	2.45	5.28	5.73	3.84	..	5.81	3.66
1958–59	4.13	5.44	3.93	7.97	6.27	4.86	1.25	4.16	5.16
Year—									
1961–62	4.12	5.38	4.89	9.12	8.16	6.43	(*a*)	7.80	(*b*) 5.57
1962–63	4.85	5.91	5.07	9.00	8.76	5.96	0.83	5.05	5.86
1963–64	4.04	5.06	5.68	9.38	9.49	6.15	(*a*)	5.30	(*b*) 5.51
1964–65	3.69	5.58	5.88	9.22	10.48	6.07	(*a*)	6.56	(*b*) 5.78
1965–66	4.77	7.01	6.08	9.82	10.09	6.37	4.00	5.93	6.63

(*a*) Not available for publication. (*b*) Incomplete; excludes Northern Territory.

Potato marketing boards were established in all States except Tasmania under separate State legislation after Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948. The life of the Queensland Board was not extended when its term ended in 1954. The New South Wales Board was voted out by growers in 1956, and the Victorian Board also ceased functioning in that year. The boards in South Australia and Western Australia are the only statutory boards still in operation.

Value of potato crop. The estimated gross value of the potato crop of each State for the 1965–66 season and the value per acre are shown in the following table.

POTATOES: VALUE OF CROP, STATES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (*a*)
Aggregate value . $'000	7,418	11,050	12,704	4,692	5,027	2,856	43,751
Value per acre . $	339	322	790	816	807	238	454

(*a*) Includes Northern Territory and Australian Capital Territory.

Consumption and exports of potatoes. The annual consumption of potatoes in Australia during each of the three years 1963–64 to 1965–66 amounted to 508,100 tons, 465,300 tons and 575,100 tons respectively or 103.4 lb, 92.8 lb and 112.6 lb respectively per head of population. These figures exclude the quantities used for seed, which averaged about 47,000 tons annually over this period. Details showing exports and imports for the years 1961–62 to 1965–66 are given in the following table.

POTATOES: EXPORTS AND IMPORTS, AUSTRALIA
1961-62 TO 1965-66

Year	Exports		Imports	
	Quantity (tons)	Value ($'000 f.o.b.)	Quantity (tons)	Value ($'000 f.o.b.)
1961–62	4,121	320	3,233	218
1962–63	15,819	850	..	..
1963–64	12,722	643	..	..
1964–65	4,715	427	5,404	343
1965–66	10,064	626	7,208	455

Western Australia has emerged in recent years as the principal exporting State, accounting for about 75 per cent of the Australian total in 1965–66. Its principal markets are Malaysia and Singapore. New Zealand is the principal source of imports.

Onions

Area, production and yield per acre. Australia's onion supply comes chiefly from Victoria and Queensland. The Victorian crop consists almost entirely of brown onions, and the bulk of the crop is grown in a small section of the Western Division of the State, where the volcanic ash soils have been found to be particularly suitable for onion growing on a commercial scale. Most of Queensland's onion production is grown in the Lockyer Valley and also consists mainly of brown varieties. Details of the area, production and yield per acre are given in the following table for the years 1961–62 to 1965–66 together with averages for the three-year periods ended 1938–39, 1948–49 and 1958–59. A graph showing production since 1935–36 appears on page 996 of Year Book No. 49.

ONIONS: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND A.C.T., 1936-37 TO 1965-66

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
				AREA (ACRES)				
Average for three years ended—								
1938–39	126	5,634	1,187	521	122	8	6	7,604
1948–49	433	6,245	2.234	534	468	26	4	9,944
1958–59	491	4,614	3,655	635	413	29	9	9,846
Year—								
1961–62	490	4,456	3,173	753	479	60	(a)	(b) 9,412
1962–63	800	4,634	3.796	944	509	79	(a)	(b)10,765
1963–64	682	3.756	3,317	930	446	91	(a)	(b) 9,222
1964–65	803	3,825	3,422	1.146	428	83	(a)	(b) 9,707
1965–66	999	2,955	2,748	1,148	331	69	(a)	(b) 8,250
				PRODUCTION (TONS)				
Average for three years ended—								
1938–39	324	34,039	3,040	3,904	915	42	21	42,285
1948–49	1,703	41,156	10,489	5,032	3,831	153	24	62.388
1958–59	2,496	31,982	15,505	5,625	4,599	132	71	60,410
Year—								
1961–62	3,082	23,784	17,921	6,915	6,290	327	(a)	(b)58,323
1962–63	5,185	26,175	21,184	8,531	6,622	515	(a)	(b)68,219
1963–64	4,998	17,946	20,412	8,736	6,814	372	(a)	(b)59,278
1964–65	6,378	22,963	22,853	11,061	5,981	465	(a)	(b)69,701
1965–66	8,764	17,115	17,728	10,069	3,948	500	(a)	(b)58,124
				YIELD PER ACRE (TONS)				
Average for three years ended—								
1938–39	2.57	6.04	2.56	7.49	7.50	5.25	3.50	5.56
1948–49	3.93	6.59	4.70	9.42	8.19	5.88	6.00	6.27
1958–59	5.08	6.93	4.24	8.86	11.14	4.55	7.89	6.14
Year—								
1961–62	6.29	5.34	5.65	9.18	13.13	5.45	(a)	(b) 6.20
1962–63	6.48	5.65	5.58	9.04	13.01	6.52	(a)	(b) 6.34
1963–64	7.33	4.78	6.15	9.39	15.28	4.09	(a)	(b) 6.43
1964–65	7.94	6.00	6.68	9.65	13.97	5.60	(a)	(b) 7.18
1965–66	8.77	5.79	6.45	8.77	11.93	7.25	(a)	(b) 7.04

(a) Not available for publication. (b) Includes a small production in Northern Territory, but excludes Australian Capital Territory.

Value of onion crop. The estimated gross value of the onion crop and the value per acre are shown in the following table for the 1965–66 season.

ONIONS: VALUE OF CROP, STATES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Aggregate value . $'000	745	1,814	2,588	1,067	393	60	6,667
Value per acre . $	746	614	942	929	1,187	870	808

Consumption and exports of onions. The consumption of onions in Australia during 1965–66 was 66,300 tons or 13.0 lb per head of population. Onions are the only root crop, other than potatoes, in which any considerable overseas trade is carried on by Australia. In 1965–66 exports amounted to 1,609 tons, valued at $171,844, and were shipped mainly to Papua and New Guinea, New Caledonia and Singapore. The quantity of exports in 1964-65 was 2,247 tons, valued at $177,270. Imports of onions amounted to 1,538 tons, valued at $136,000. in 1965–66, and 815 tons, valued at $74,112, in 1964–65. The principal country from which onions were imported was New Zealand.

Fruit

The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales citrus fruit (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears, and cherries are grown extensively. The principal varieties grown in Victoria are apples, pears, peaches, oranges, and apricots. In Queensland apples, pineapples, bananas, oranges, mandarins, peaches, and plums are the varieties most largely cultivated. In South Australia, in addition to oranges, apples, peaches, apricots, and pears, almonds and olives are grown extensively. In Western Australia apples, oranges, plums, and pears are the chief varieties. In Tasmania apples occupy over three-quarters of the fruit-growing area, but small fruit, such as currants, raspberries and gooseberries, is grown extensively, the balance of the area being mainly taken up with pears and apricots.

Overseas marketing of fruits

The *Apple and Pear Organization Act* 1938–1966 provides for the establishment of an Australian Apple and Pear Board comprising representatives of growers, exporters, employees, and the Commonwealth Government. A representative in London has also been appointed by the Board. An export levy to meet the expenses of the Board is provided for in the *Apple and Pear Export Charges Act* 1938–1966. The function of the Board is the organisation and control of exports of fresh apples and pears, and it has the power to regulate shipments, determine export quotas, allocate consignments from each State, and recommend the licensing of exporters. The Board contributes to apple and pear publicity activities overseas.

In January 1964 the *Canned Fruits Marketing Act* 1963–1966 replaced the *Canned Fruits Export Control Act* 1926–1959 under which the overseas marketing of canned fruit was initially organised (*see* Year Book No. 49, page 1050). The Australian Canned Fruits Board, which is constituted under the Act, determines the terms and conditions for overseas sales. The Board exercises this control through a system of export licences. The Board, whose membership was increased from five to eleven members and which was granted greater powers under the new Act, comprises representatives of the Commonwealth Government (one), canners of deciduous fruit (six), growers of deciduous fruit (three), and pineapple interests (one). The Board maintains a London office. The *Canned Fruits Export Charges Act* 1926–1966 provides for a levy on exports to meet the Board's expenses, which include contributions to overseas publicity connected with the canned fruit industry. In 1963 an excise duty was imposed by the *Canned Fruits Excise Act* 1963 on canned deciduous fruit entered for domestic consumption, and the proceeds of the duty are made available to the Board to assist in the promotion of overseas sales of canned deciduous fruit.

In 1959 the Australian Canned Fruit Sales Promotion Committee was established to promote the sale of canned deciduous fruit on the home market and overseas. The operations of the Committee are financed by a levy on fruit accepted by the canneries for the production of canned fruit. The Committee comprises representatives of growers and processers of canning fruit and a representative of the Commonwealth Government.

Area and production of fruit

The area under fruit in Australia has been increasing steadily in recent years, and new record levels have been reached each year since 1960–61. The following tables set out the area under fruit and production in the several States.

FRUIT: AREA, STATES AND TERRITORIES, 1961-62 TO 1965-66

(Acres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62	94,246	72,712	41,872	38,548	24,487	21,859	136	65	293,925
1962–63	98,032	75,855	43,242	40,444	25,204	21,943	136	55	304,911
1963–64	98,670	76,796	44,681	41,686	25,670	22,134	149	54	309,840
1964–65	97,221	75,509	45,918	43,012	26,425	22,375	130	56	310,646
1965–66	97,212	75,001	47,715	43,986	26,715	22,426	110	42	313,207

FRUIT: AREA AND PRODUCTION, STATES AND TERRITORIES, 1965-66

Fruit	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA, BEARING AND NOT BEARING (ACRES)									
Apples	19,062	22,247	13,144	5,943	16,041	18,389	..	39	94,865
Apricots	2,034	3,272	504	4,846	305	466	..	..	11,427
Bananas	20,682	..	5,407	..	446	..	20	..	26,555
Cherries	3,023	2,025	13	575	45	58	..	..	5,739
Citrus—									
Oranges	28,595	7,115	3,679	17,405	4,687	..	36	..	61,517
Mandarins	2,525	601	2,479	853	550	..	2	..	7,010
Lemons and limes	2,512	1,123	422	656	602	..	3	..	5,318
Other	690	302	96	554	125	..	3	..	1,770
Nuts	164	290	754	3,629	87	..	26	..	4,950
Peaches	7,896	14,551	1,806	4,776	956	51	..	(*a*)	(*b*)30,036
Pears	3,132	16,887	1,160	1,977	1,144	1,641	..	(*a*)	(*b*)25,941
Pineapples	173	..	12,753	..	..	..	12	..	12,938
Plums	1,835	1,576	1,428	352	1,083	70	..	..	6,344
Prunes	3,173	263	..	682	7	5	..	..	4,130
Small fruit	30	966	180	156	9	1,719	..	..	3,060
Other fruit	1,686	3,783	3,890	1,582	628	27	8	3	11,607
Total	**97,212**	**75,001**	**47,715**	**43,986**	**26,715**	**22,426**	**110**	**42**	**313,207**
PRODUCTION ('000 BUSHELS)									
Apples	2,924	4,206	1,375	1,308	1,603	8,364	..	3	19,783
Apricots	324	546	27	827	29	26	..	..	1,778
Bananas	3,743		751	..	199	..	2	..	4,694
Cherries	195	140	1	54	1	4			396
Citrus—									
Oranges	4,446	1,012	721	2,633	323	..	1	..	9,137
Mandarins	174	41	230	49	24	..	..	..	519
Lemons and limes	422	121	92	43	118	..	1	..	795
Peaches	1,304	2,603	175	1,303	121	3	..	(*c*)	(*b*) 5,508
Pears	576	5,453	107	509	190	650	..	(*c*)	(*b*) 7,485
Pineapples	29	..	4,894	..	..	..	1		4,924
Plums	171	154	122	34	103	13	..	..	597
Prunes	271	20		62		1	..	..	355

(*a*) Not available for publication; included with Other fruit. (*b*) Incomplete; excludes the Australian Capital Territory. (*c*) Not available for publication.

Principal fruit crops

The area and production of the principal fruit crops and the gross value of production during the seasons 1961–62 to 1965–66 are shown hereunder.

PRINCIPAL FRUIT CROPS: AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION, AUSTRALIA, 1961-62 TO 1965-66

Year	Apples	Apricots	Bananas	Oranges	Peaches	Pears	Plums and prunes
AREA, BEARING AND NOT BEARING (ACRES)							
1961–62	87,571	11,461	29,180	53,623	29,627	25,338	10,839
1962–63	91,380	11,847	30,392	57,301	30,226	25,945	10,828
1963–64	92,859	11,890	29,709	59,211	30,237	25,870	10,963
1964–65	94,870	11,274	26,762	60,497	30,387	26,079	10,515
1965–66	94,865	11,427	26,555	61,517	30,036	25,941	10,474

PRINCIPAL FRUIT CROPS: AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION, AUSTRALIA, 1961-62 TO 1965-66—*continued*

Year	Apples	Apricots	Bananas	Oranges	Peaches	Pears	Plums and prunes
PRODUCTION ('000 BUSHELS)							
1961–62 . .	17,127	1,869	4,876	8,168	3,962	6,567	961
1962–63 . .	18,349	1,913	4,832	9,307	4,003	5,667	1,043
1963–64 . .	19,285	1,610	5,324	8,735	4,366	6,916	1,039
1964–65 . .	18,897	1,968	5,028	10,836	5,078	5,920	1,068
1965–66 . .	19,783	1,778	4,694	9,137	5,508	7,485	952
GROSS VALUE OF PRODUCTION ($'000)							
1961–62 . .	40,006	5,754	17,262	19,194	9,534	14,408	3,322
1962–63 . .	42,006	5,296	18,354	19,752	9,548	12,760	3,226
1963–64 . .	44,862	4,802	16,442	20,834	10,084	14,900	4,036
1964–65 . .	46,577	5,508	18,585	23,547	12,676	14,753	4,544
1965–66 . .	47,631	5,119	20,409	22,037	13,795	17,674	3,419

Production and consumption of jams and jellies and preserved fruit

In Australia considerable quantities of fruit are used in the production of jams and jellies and for preserving. During 1965–66 output of jams, conserves, fruit spreads, etc. amounted to 97,149,000 lb, while output of preserved fruit amounted to 579,619,000 lb. Of the latter figure, pears accounted for 156,706,000 lb, peaches 217,549,000 lb, and pineapples 62,310,000 lb.

In 1965–66, 8,015,973 cwt of fruit was recorded as used in factories classified to the sub-classes Oils, vegetable; Jam, fruit and vegetable canning; Condiments, coffee, spices; Aerated waters and cordials; and Dehydrated fruit and vegetables. Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1965–66 are shown in the chapter Miscellaneous.

Imports and exports of fruit and fruit products

The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates obtained almost entirely from Iraq and Iran. A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1965–66 amounted to $37,819,000 and $28,439,000 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruit are considerable. Particulars of the Australian export trade in fresh and frozen fruit for each of the years 1961–62 to 1965–66 are shown in the following table.

FRESH AND FROZEN FRUIT: EXPORTS, AUSTRALIA, 1961-62 TO 1965-66

Year	Apples		Pears		Citrus		Total value(*a*)
	Quantity	Value	Quantity	Value	Quantity	Value	
	'000 bus	$'000 f.o.b.	'000 bus	$'000 f.o.b.	'000 bus	$'000 f.o.b.	$A'000 f.o.b.
1961–62 . .	7,083	18,792	1,639	5,150	673	2,172	26,726
1962–63 . .	7,206	23,290	1,071	3,500	862	2,566	29,968
1963–64 . .	8,212	24,036	1,666	5,294	961	2,986	33,156
1964–65 . .	7,051	20,989	1,461	5,297	1,082	3,382	30,543
1965–66 . .	8,363	25,863	2,089	7,464	1,210	3,685	37,819

(*a*) Includes exports of all other fresh and frozen fruit.

The quantity and value of overseas imports and exports of dried fruit, other than raisins and currants, for the years 1961–62 to 1965–66 are shown below.

DRIED TREE FRUIT(*a*): IMPORTS AND EXPORTS, AUSTRALIA
1961-62 TO 1965-66

Year	Imports(*b*)		Exports	
	Quantity	Value	Quantity	Value
	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.
1961–62	8,266	628	5,951	1,564
1962–63	8,939	592	6,603	1,903
1963–64	10,262	604	8,479	1,988
1964–65	8,454	601	9,414	1,808
1965–66	8,145	557	11,907	2,450

(*a*) Excludes sultanas, raisins and currants dealt with separately under Vineyards (*see* below). (*b*) Dates and figs only.

Exports of jam and jellies in 1965–66 were 10,346,000 lb, valued at $1,504,000, compared with 11,006,000 lb, valued at $1,677,000 in 1964–65. Imports of jams and jellies in 1965–66 were 1,304,000 lb, valued at $268,000, compared with 1,234,000 lb, valued at $251,000 in 1964–65.

Large quantities of canned or bottled fruit are normally exported from Australia, the quantity recorded in 1965–66 being 138,082 tons valued at $37,763,000. Exports in 1965–66 were made up principally of peaches (56,413 tons), pears (49,446 tons), fruit salad (11,359 tons), pineapples (7,516 tons), and apricots (5,266 tons). In addition, the exports of pulped fruits during 1965–66 amounted to 1,027 tons valued at $364,102.

The total value of canned or bottled fruit (including fruit juices) imported into Australia during 1965–66 was $812,000. The value of exports of fruit juices in 1965–66 was $886,000.

Vineyards

Grapes require a warm to hot climate and a predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a minor extent, for table use. In Australia wine is produced very largely from irrigated crops, as are dried fruits. Some of the better known wine producing areas are the Murray Valley (South Australia and Victoria), Barossa Valley and Southern Vales Areas (South Australia), the Murrumbidgee Irrigation Area and the Hunter Valley (New South Wales), the Mildura, Rutherglen and Stawell districts of Victoria, and the Swan Valley (Western Australia). Nearly all the dried fruit is produced along the River Murray and its tributaries, with small localised areas in the other States.

Area of vineyards

The area under vineyards in the 1965–66 season in Victoria and South Australia constituted 77 per cent of the total area of vineyards. The total area of vines in the several States during each of the years 1961–62 to 1965–66 and the averages for the three-year periods ended 1938-39, 1948–49 and 1958–59 are shown in the following table.

VINEYARDS: AREA, STATES, 1936-37 TO 1965-66

(Acres)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Average for three years ended—						
1938–39	16,824	42,071	2,670	57,185	6,197	124,947
1948–49	16,482	44,114	3,099	58,971	9,965	132,631
1958–59	17,210	44,823	2,926	57,199	8,967	131,125
Year—						
1961–62	17,607	45,105	3,203	57,836	9,017	132,768
1962–63	17,704	45,662	3,237	58,266	8,685	133,554
1963–64	18,715	46,501	3,276	58,679	8,629	135,800
1964–65	20,464	47,996	3,299	58,857	8,310	138,926
1965–66—						
Drying	8,392	39,984	..	13,005	3,191	64,572
Table	3,081	3,258	2,974	299	1,416	11,028
Wine	9,819	5,375	294	45,427	3,608	64,523
Total	**21,292**	**48,617**	**3,268**	**58,730**	**8,215**	**140,122**

Wine industry

Australia produces wine of every type and also brandy. In recent years there has been a distinct trend toward greater consumption and production of unfortified or table wines. Until 1957–58 production of these wines (which include burgundy, claret, riesling, sauterne, and sparkling wines) was less than half that of the fortified varieties (sherries, ports, etc.). By 1965–66 production of table wines reached a volume only 5 per cent smaller than that of fortified varieties.

The Wine Overseas Marketing Act 1929–1966 was introduced to place the overseas marketing of wine on an orderly basis. The Australian Wine Board, consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board also engages in wine publicity and trade promotion activities both in Australia and overseas. In London the Board maintains an Australian Wine Centre, which is a medium for promoting interest in Australian wines and brandy. It is also a retail shop for the sale of these products. *The Wine Grapes Charges Act* 1929–1966 provides for the imposition of a levy on all grapes used in Australia for the manufacture of wine, brandy and spirit used for fortifying wine. The proceeds of the levy are used to meet the Board's projects in Australia and overseas and to defray the administrative expenses of the Board, which has no other source of income.

Production and consumption of wine and brandy

In 1965–66 the total production of wine (beverage and distillation) in Australia was 34.0 million gallons, while total consumption of beverage wine was 15.3 million gallons (1.34 gallons per head of population). Similar particulars for 1964–65 are 38.5 million gallons and 13.8 million gallons (1.23 gallons per head of population) respectively.

The quantities of wine and brandy produced in the several States during the 1961–62 to 1965–66 seasons, together with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59, are shown in the following table.

WINE: PRODUCTION(*a*), STATES, 1936-37 TO 1965-66

('000 gallons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Average for three years ended—						
1938–39 . .	2,712	1,359	31	14,021	396	18,519
1948–49 . .	4,178	3,040	31	25,906	689	33,844
1958–59 . .	3,974	2,435	36	25,190	743	32,378
Year—						
1961–62 . .	6,442	3,605	36	30,831	822	41,736
1962–63 . .	5,858	2,433	28	20,785	789	29,893
1963–64 . .	6,030	3,705	33	27,102	666	37,536
1964–65 . .	6,404	3,458	24	28,022	613	38,520
1965–66 . .	6,439	2,982	24	23,884	627	33,956

(*a*) Net factory and farm production of beverage and distillation wine excluding the liquid gallonage of spirits added in wine fortifying.

BRANDY: PRODUCTION, SOUTH AUSTRALIA AND AUSTRALIA, 1936–37 TO 1965–66

(Proof gallons)

Period	South Australia	Australia(*a*)
Average for three years ended—		
1938–39 . .	446,251	505,474
1948–49 . .	648,641	714,688
1958–59 . .	1,009,040	1,149,032
Year—		
1961–62 . .	1,042,580	1,177,943
1962–63 . .	994,420	1,128,997
1963–64 . .	1,052,850	1,219,968
1964–65 . .	1,183,351	1,400,100
1965–66 . .	1,167,309	1,371,217

(*a*) Includes New South Wales and Victoria, for which separate details are not available for publication.

Exports and imports of wine and brandy

Principal markets for exports of Australian wine are the United Kingdom, Canada and New Zealand. During 1965–66 these countries received 1,251,368 gallons, 384,026 gallons and 81,222 gallons respectively. Exports of Australian-produced wine for the five years ended 1965–66 are shown in the following table.

WINE: EXPORTS, AUSTRALIA, 1961–62 TO 1965–66

Year	Quantity (gallons)			Value ($f.o.b.)		
	Sparkling	Other	Total	Sparkling	Other	Total
1961–62 . .	5,145	1,664,984	1,670,129	34,200	2,737,860	2,772,060
1962–63 . .	17,245	1,596,887	1,614,132	92,444	2,657,052	2,749,496
1963–64 . .	10,373	1,527,666	1,538,037	62,118	2,682,108	2,744,226
1964–65 . .	16,035	1,977,329	1,993,364	96,056	3,427,426	3,523,482
1965–66 . .	34,888	1,932,374	1,967,262	170,859	3,384,696	3,555,555

Imports of wine for 1965–66 amounted to 145,861 gallons valued at $647,000, compared with 149,818 gallons valued at $618,000 in the previous year. During 1965–66 Italy supplied 70,034 gallons valued at $224,000, France 33,626 gallons valued at $251,000 and the Federal Republic of Germany 12,741 gallons valued at $71,000.

Exports of Australian-produced brandy in 1965–66 amounted to 117,434 proof gallons, valued at $559,000. Imports of brandy, mainly from France, amounted to 77,476 proof gallons, valued at $476,000.

Dried vine fruit industries

The dry period from November to March in the lower Murray valley makes this an ideal area for dried vine fruit. Harvesting for drying takes place at the end of summer. The sun-drying process is often accelerated by using a dip of cold potash.

The *Dried Fruits Export Control Act* 1924–1966 was passed to organise overseas marketing of Australian dried vine fruit. The Australian Dried Fruits Control Board, consisting of growers' representatives, members with commercial experience in marketing dried fruits and a Government representative, controls the sale and distribution of dried fruit exports, recommends the licensing of exporters and contributes to dried vine fruit publicity activity overseas. In conjunction with its London office, the Board has improved dried fruit marketing overseas by its system of appraisement, regulation of shipments and advertising. The *Dried Fruits Export Charges Act* 1924–1965 provides for a levy on exports of dried fruit to defray costs and expenses incurred by the Board.

For details of the bulk purchase agreements between the Governments of the United Kingdom and Australia which operated during the period 1946–53 *see* Year Book No. 40, page 888. From 1 December 1953 exports to the United Kingdom have been on a trader to trader basis.

In June 1963 Australian, Greek and Turkish dried vine fruit interests concluded an agreement to maintain minimum prices for sultanas on world markets. The agreement, which aims at international price stability, is periodically reviewed. A permanent committee of the contracting parties was established in London for the purpose of supervising the working of the agreement, and a sub-committee of the permanent committee was established in Hamburg in 1964.

The Dried Vine Fruits Stabilization Scheme was introduced under the *Dried Vine Fruits Stabilization Act* 1964–1966 to stabilise seasonal returns to growers of currants, sultanas and raisins. Its main features are as follows.

Growers are guaranteed an average return from seasonal sales of currants, sultanas and raisins equal to the average cost of production of each variety less $10.00 a ton.

The maximum quantities for which returns are guaranteed each season are 13,500 tons of currants, 75,000 tons of sultanas and 11,000 tons of raisins.

Growers are required to contribute to separate varietal stabilisation funds when the average return to the industry from seasonal sales of a variety exceeds cost of production by more than $10.00 a ton, with a limit on such contributions of $20.00 a ton.

When the quantity received for packing in any season does not reach 8,000 tons of currants, 50,000 tons of sultanas or 6,000 tons of raisins, growers are not required to contribute to the stabilisation fund for the variety concerned.

Contributions are to be made by the Commonwealth to raise average returns to the guaranteed price when there is insufficient industry money in a stabilisation fund for this purpose.

Limits are set to the accumulation of money in the stabilisation funds. These are $1,000,000 in the case of both the currant and raisin stabilisation funds, and $4,000,000 in the case of the sultana stabilisation fund.

Where these limits are exceeded during the operation of the scheme, the excess will be used first to reimburse the Government for any contribution it may have made to a fund; any balance will be repaid to growers on a first-in first-out basis.

The scheme is to operate for five years. At the end of the fifth year any credit balance in the stabilisation funds will be used, in the first instance, to reimburse the Government for unrepaid contributions (if any). If the scheme is not renewed any remaining money will be returned to growers.

Growers' contributions for the scheme are collected under the *Dried Vine Fruits Contributory Charges Act* 1964–1966 and the *Dried Vine Fruits Contributory Charges (Collection) Act* 1964–1966.

The production of dried vine fruit during each of the seasons 1961–62 to 1965–66 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown in the following table.

DRIED VINE FRUIT: PRODUCTION, STATES, 1936–37 TO 1965–66

(Tons)

Period	N.S.W.		Vic.		S.A.		W.A.		Australia	
	Raisins (*a*)	Currants	Raisins (*a*)	Currants	Raisins (*a*)	Currants	Raisins (*a*)	Currants	Raisins (*a*)	Currants
Average for three years ended—										
1938–39 . .	5,464	1,163	39,810	8,953	13,215	9,009	723	2,179	59,212	21,304
1948–49 . .	5,429	994	40,027	7,380	8,811	5,243	580	3,179	54,847	16,796
1958–59 . .	10,300	705	53,178	4,294	11,115	4,432	118	1,746	74,711	11,177
Year—										
1961–62 . .	13,089	410	64,862	2,714	10.674	2.742	66	1.941	88,691	7,807
1962–63 . .	8,560	463	44,059	2,536	11,007	2,607	51	1,225	63,677	6,831
1963–64 . .	13.563	709	66,138	3,934	13.159	4,533	121	2.166	92,981	11,342
1964–65 . .	12.841	632	66.153	4.477	16,325	5,044	75	2,364	95,394	12,517
1965–66 . .	11,480	449	59,418	3,127	11,915	3,153	116	1,306	82,929	8,035

(*a*) Includes sultanas and lexias.

The following table shows the exports of dried vine fruit during each of the years 1961–62 to 1965–66.

DRIED VINE FRUIT(*a*): EXPORTS, AUSTRALIA, 1961–62 TO 1965–66

Year	Raisins, sultanas and lexias		Currants		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	$'000 f.o.b.	tons	$'000 f.o.b.	tons	$'000 f.o.b.
1961–62 . .	60,169	17,910	4,564	1,240	64,733	19,150
1962–63 . .	56,696	16,058	4,208	1,141	60,904	17,199
1963–64 . .	57,451	17,442	5,512	1,601	62.963	19,043
1964–65 . .	63,197	20,324	6,532	1,968	69,729	22,292
1965–66 . .	74,704	24,070	6,102	1,918	80,805	25,988

(*a*) Excludes quantities exported as mincemeat.

The chief countries importing Australian dried vine fruit are the United Kingdom, Canada, New Zealand, the Federal Republic of Germany, and Ireland. The quantities exported to these countries in 1965–66 were 34,382 tons, 20,316 tons, 7,685 tons, 7,063 tons, and 1,931 tons respectively.

Table grapes

Grapes for table use are grown in all States except Tasmania, but the area of this type was only about 8 per cent of the productive area of vines in 1965–66. The quantities of table grapes produced during the season 1965–66 in each State are shown on page 897.

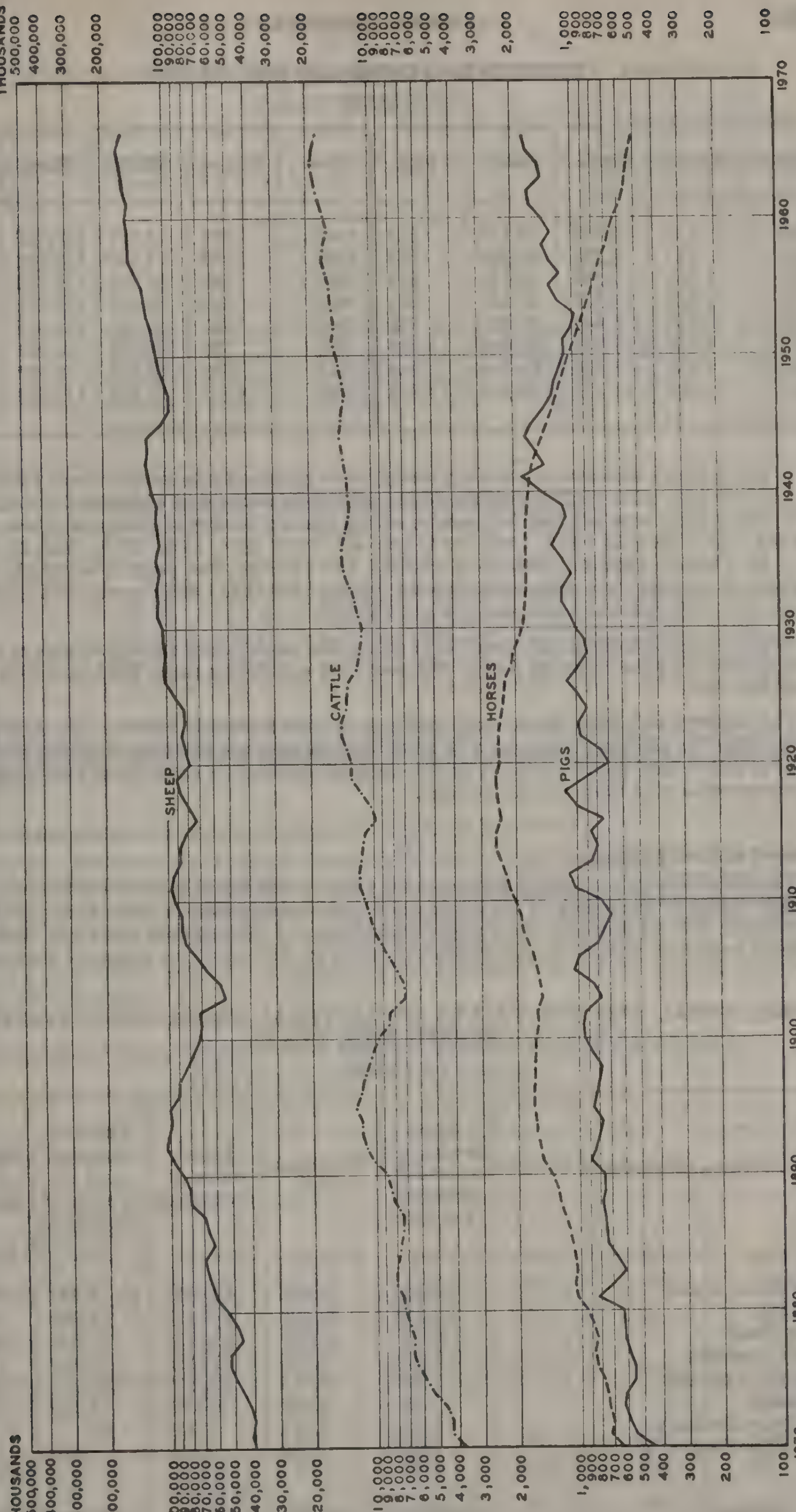
PASTORAL PRODUCTION

Livestock numbers

A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given on page 748 of Year Book No. 35. Since 1860 annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia, at decennial intervals from 1860 to 1960. and from 1962 onwards in single years, are given in the following table, and are shown continuously since 1870 on the graph on plate 46 opposite.

LIVESTOCK: AUSTRALIA, 1870 TO 1966

RATIO GRAPH



NOTE:- VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY SCALE.

PLATE 46

LIVESTOCK: AUSTRALIA, 1860 TO 1966
('000)

Year	Horses	Cattle	Sheep	Pigs	Year	Horses	Cattle	Sheep	Pigs
1860 .	432	3,958	20,135	351	1940 .	1,699	13,080	119,305	1,455
1870 .	717	4,276	41,594	543	1950 .	1,057	14,640	112,891	1,123
1880 .	1,069	7,527	62,184	816	1960 .	640	16,503	155,174	1,424
1890 .	1,522	10,300	97,881	891	1962 .	562	18,033	157,712	1,652
1900 .	1,610	8,640	70,603	950	1963 .	547	18,549	158,626	1,440
1910 .	2,166	11,745	98,066	1,026	1964 .	536	19,055	164,981	1,468
1920 .	2,416	13,500	81,796	764	1965 .	520	18,816	170,622	1,660
1930 .	1,793	11,721	110,568	1,072	1966 .	n.a.	17,936	157,563	1,747

While livestock numbers (particularly sheep) have increased substantially since 1860, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia. These occurred in 1868, 1877, 1883–84, 1892, 1893, 1895, 1901–02, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41, 1944–45 to 1946–47, and 1965–66. The years in which the numbers of livestock attained their peaks are as follows: horses, 1919 (2,527,000); cattle, 1964 (19,055,000); sheep, 1965 (170,622,000); and pigs, 1941 (1,797,000).

The distribution throughout Australia of sheep, beef cattle, dairy cattle, and pigs at 31 March 1963 is shown in the maps on pages 1049 and 1050 and facing pages 1082 and 1083 of Year Book No. 50.

The numbers of horses, cattle, sheep, and pigs in each State and Territory are shown later in this chapter. As explained on page 954, since 1964 farmers are no longer asked to classify their herds as either 'beef cattle' or 'dairy cattle', detailed statistics of cattle from 1964 onwards are not comparable with those for earlier years.

Value of pastoral production

Values of pastoral production are shown for 1965–66 and earlier years in the following tables. Further details of the source of the information and an explanation of the terms used in this compilation will be found in the chapter Miscellaneous. Maintenance costs and depreciation have not been deducted; consequently the net values are inflated to the extent of these amounts.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, STATES AND TERRITORIES, 1965-66
($'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Local value of production	Value of materials used in process of production	Net value of production(a)
New South Wales . . .	468,443	37,492	430,951	(b) 74,481	356,470
Victoria	413,558	42,429	371,130	24,900	346,230
Queensland	256,027	21,593	234,434	35,536	198,898
South Australia . . .	152,224	9,086	143,138	19,381	123,757
Western Australia . . .	157,249	10,934	146,315	16,543	129,773
Tasmania	37,350	2,302	35,048	12,729	22,319
Northern Territory . . .	11,887	2,145	9,742	n.a.	9,742
Australian Capital Territory .	1,597	130	1,467	120	1,347
Australia	**1,498,335**	**126,111**	**1,372,225**	**183,690**	**1,188,536**

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

NET VALUE OF PASTORAL PRODUCTION(*a*): STATES AND TERRITORIES 1961-62 TO 1965-66

Year	N.S.W. (*b*)	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*c*)
			NET VALUE ($'000)				
1961–62 . .	366,004	231,056	172,898	91,256	82,656	11,708	962,676
1962–63 . .	403,660	265,126	200,522	103,990	82,580	15,084	1,078,698
1963–64 . .	503,090	323,696	235,774	125,978	123,544	19,566	1,340,578
1964–65 . .	451,368	309,668	220,988	110,054	101,069	21,040	1,221,300
1965–66 . .	356,470	346,230	198,898	123,757	129,773	22,319	1,188,536
			NET VALUE PER HEAD OF POPULATION ($)				
1961–62 . .	92.65	78.16	112.97	93.41	110.89	33.15	90.79
1962–63 . .	100.47	88.05	129.09	104.43	107.73	42.12	99.87
1963–64 . .	123.35	105.37	148.83	123.47	156.89	53.95	121.76
1964–65 . .	109.09	98.79	136.82	104.96	125.50	57.45	108.79
1965–66 . .	84.80	108.47	120.73	114.82	157.30	60.42	103.86

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowance has been made for costs of power, power kerosene, petrol and other oils. (*c*) Includes Northern Territory and Australian Capital Territory.

Indexes of quantum and price of pastoral production, 1961-62 to 1965-66

The quantum indexes shown in the following table relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936–37 to 1938–39. The price indexes relate to average 'prices' of farm products realised in the principal markets of Australia. Average quantities of each product marketed in the period 1946–47 to 1950–51 have been used as fixed weights. For further details of the methods of calculating these indexes and of the weights used *see* the chapter Miscellaneous.

INDEXES OF QUANTUM(*a*) AND PRICE OF PASTORAL PRODUCTION AUSTRALIA, 1961-62 TO 1965-66

(*Base: Average* 3 *years ended June* 1939 = 100)

	1961–62	1962–63	1963–64	1964–65	1965–66
Quantum(*a*) produced—					
Wool	174	170	183	183	169
Other products . . .	144	154	158	158	157
Total, pastoral . . .	*160*	*163*	*172*	*172*	*163*
Per head of population .	104	104	107	105	98
Price—					
Wool	412	449	531	437	458
Other products . . .	433	451	480	496	567
Total, pastoral . . .	*421*	*450*	*511*	*460*	*501*

(*a*) Index of value at constant prices, i.e. quantities revalued at average unit values of base years 1936–37 to 1938–39.

Sheep

Distribution throughout Australia

With the exception of a short period in the early eighteen-sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing nearly one-half of the sheep of Australia (43 per cent over the five years ended March 1966). In Western Australia, sheep numbers have shown a marked increase in recent years, having doubled between 1952 and 1966.

A map showing the distribution of sheep in Australia at 31 March 1963 appears on page 1049 of Year Book No. 50. Graphs showing the number of sheep in Australia from 1870 onwards appear on plates 46 and 47 of this Year Book (pages 949 and 961).

SHEEP: NUMBERS IN STATES AND TERRITORIES, 1937 TO 1966

('000)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939	51,202	17,845	21,889	8,916	8,972	2,460	23	251	111,558
1949	46,525	17,900	16.442	8.793	10,368	2.060	24	227	102,339
1959	67,006	26,615	22,537	15,285	15,609	3,259	25	265	150,601
At 31 March—									
1962	69,498	27,533	22,125	16,415	18,314	3,531	10	286	157,712
1963	70.021	27,472	22,811	15,737	18,727	3,570	9	279	158,626
1964	71,764	28,413	24,337	16,403	20,165	3,600	10	289	164,981
1965	72,396	30,437	24,016	17,289	22,392	3,793	9	290	170,622
1966	61,396	30,968	18,384	17,993	24,427	4,127	9	258	157,563

Drought conditions in 1965-66 resulted in heavy losses of sheep in New South Wales and Queensland, and brought about a reduction of 8 per cent in the Australian total at 31 March 1966, compared with the record numbers of the previous year. The percentage distribution in the several States in 1966 was: New South Wales, 39; Victoria, 19; Queensland, 12; South Australia, 11; Western Australia, 16; and Tasmania, 3.

Movement in sheep numbers

SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA 1961-62 TO 1965-66

('000)

Year ended 31 March	Numbers at beginning of season	Lambs marked	Net exports	Sheep and lambs slaughtered (a)	Estimated deaths on farms (b)	Numbers at close of season
1962	152,679	45,596	181	33,317	7,065	157,712
1963	157,712	45,146	247	33,944	10,041	158,626
1964	158,626	47,818	312	33,240	7,911	164,981
1965	164,981	47,608	307	33,549	8,111	170,622
1966	170,622	40.330	273	33,580	19,536	157,563

(a) Includes an estimate for numbers boiled down. (b) Balance figure; excludes lambs which died before marking.

Comparisons of Australian flock numbers with those of certain other principal sheep producing countries are given on page 968.

Classification of sheep according to age, sex and breed

SHEEP, BY AGE AND SEX: AUSTRALIA, 1962 TO 1966

('000)

Description	1962	1963	1964	1965	1966
Rams, 1 year and over	1,956	1,979	1,986	2,047	2,002
Breeding ewes (including ewes intended for mating)	70,693	70,936	72,862	75,580	73,626
Other ewes, 1 year and over	8,729	8,878	8,631	8,952	7,397
Wethers, 1 year and over	43,021	44,267	46,203	49,284	45,649
Lambs and hoggets, under 1 year	33,313	32,566	35,299	34,759	28,890
Total, sheep and lambs	**157,712**	**158,626**	**164,981**	**170,622**	**157,563**

Particulars of the principal breeds of sheep at 31 March 1965 (details are collected on a triennial basis) are shown in the following table.

SHEEP, BY PRINCIPAL BREED: STATES AND TERRITORIES, 31 MARCH 1965

('000)

Breed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Merino	56,232	14,148	23,655	14,581	20,533	351	9	245	129,754
Other recognised breeds	7,601	7,486	129	1,218	788	2,352	..	13	19,587
Merino comeback (*a*)	1,163	2,160	47	284	287	419	..	4	4,364
Crossbreds(*b*)	7,400	6,643	185	1,206	784	671	..	27	16,917
Total	72,396	30,437	24,016	17,289	22,392	3,793	9	290	170,622

(*a*) Merino comeback is the progeny of a crossbred Merino ewe and a Merino ram, i.e. finer than half-bred. (*b*) Half-bred and coarser.

Exports and imports of sheep

The overseas exports of live sheep from Australia are of comparatively minor importance. On 27 November 1929 the export of stud Merino sheep was prohibited, except with the approval of the Minister for Primary Industry. Exports of sheep are now principally for slaughter overseas. Consignments for this purpose in recent years were made chiefly from Western Australia to Kuwait and Singapore. In 1965–66 the number of sheep exported was 290,960, valued at $2,513,000 (1964–65, 286,205, valued at $2,411,000). Since June 1958 an embargo has been imposed on the import of sheep in order to prevent the introduction of the disease 'blue-tongue'.

Cattle

Objects of cattle-raising in Australia

Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of profitable dairy herds. While dairy cattle are restricted mainly to coastal districts, beef cattle are more widely distributed, particularly in the eastern States, and are raised in areas unsuitable for dairy cattle, such as the tropical area of northern Queensland, the Northern Territory and the Kimberley district in the north of Western Australia.

Distribution throughout Australia

Although cattle numbers declined after 1957 because of drought conditions and heavy slaughterings, they began to rise again in 1960 and in 1964 reached a record level of 19,055,000. Again because of drought in the eastern States, this figure declined to 17,936,000 in 1966.

A graph showing the number of cattle in Australia from 1870 onwards appears on plate 46, page 949.

CATTLE: NUMBERS IN STATES AND TERRITORIES, 1937 TO 1966

('000)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939	3,040	1,861	6,002	324	767	260	882	8	13,144
1949	3,122	2,153	5,971	443	830	244	1,006	9	13,778
1959	3,770	2,722	7,177	598	985	367	1,173	10	16,802
At 31 March—									
1962	4,399	3,156	7,098	659	1,218	425	1,064	14	18,033
1963	4,569	3,225	7,233	679	1,298	444	1,087	14	18,549
1964	4,789	3,301	7,402	694	1,299	450	1,105	15	19,055
1965	4,619	3,316	7,393	697	1,258	451	1,068	14	18,816
1966	4,153	3,397	6,888	690	1,271	492	1,032	13	17,936

Although the proportion was not as high as it has been in some previous years, Queensland was carrying 38 per cent of the cattle in Australia in 1966. The percentage in each State and Territory during that year was: New South Wales, 23; Victoria, 19; Queensland, 38; South Australia, 4; Western Australia, 7; Tasmania, 3; and Northern Territory, 6.

Maps showing the distribution of beef and dairy cattle in Australia appear on pages 1050 and 1082 of Year Book No. 50, and maps showing the distribution in earlier years were published in previous issues of the Year Book.

Classification of cattle

The wording and layout of the cattle section of the statistical forms used for the Agricultural, Dairying and Pastoral Census conducted at 31 March 1964 was changed from that used previously. Prior to 1964 farmers were asked to classify their herds as either 'beef cattle' or 'dairy cattle'. These two terms tended to confuse breed and purpose, and in those instances where vealer production was carried on in association with dairying, farmers were in doubt how to classify part or all of their herds. Since 31 March 1964 farmers have been asked to classify their cattle according to the two main purposes of (i) milk production and (ii) meat production, irrespective of breed, and to report separately the number of cows and heifers kept for their own domestic milk supply. Consequently detailed statistics of cattle from 1964 onwards are not comparable with earlier figures. However, four broad groupings of cattle are generally comparable with earlier years, and particulars for each year from 1962 to 1966 are shown below.

CATTLE: NUMBERS, AUSTRALIA, 1962 TO 1966

('000)

31 March—	Bulls one year and over	Cows and heifers one year and over	Calves under one year	Other	Total
1962	366	10,543	3,872	3,252	18,033
1963	379	10,936	4,079	3,155	18,549
1964	377	11,138	4,254	3,286	19,055
1965	369	11,130	4,068	3,248	18,816
1966	351	10,609	3,744	3,232	17,936

CATTLE, BY PURPOSE(*a*), AGE AND SEX: STATES AND TERRITORIES 31 MARCH 1966

('000)

Classification	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (*b*)	A.C.T.	Aust.
Bulls (1 year and over) used or intended for service—									
Dairy breeds	19	39	17	6	4	4	..	..	90
Beef breeds	64	32	105	10	21	5	24	..	261
Total bulls	*83*	*71*	*122*	*16*	*25*	*9*	*24*	..	*351*
Cattle used or intended for production of—									
Milk or cream for sale—									
Cows—In milk	523	886	469	93	43	148	..	1	2,908
Dry	152	305	158	62	67			..	
Heifers—Springing (within 3 months of calving)	195	320	168	21	24	42	..	..	823
Other (1 year and over)				25	28				
Calves (under 1 year)	134	325	104	38	32	47	..	..	681
Milk or cream for use on rural holdings—									
House cows and heifers	93	30	39	6	10	6	..	..	186
Total cattle, production of milk, etc.	*1,097*	*1,867*	*937*	*245*	*204*	*244*	*1*	*2*	*4,598*
Cattle for other purposes(*c*)—									
Cows and heifers (1 year and over)	1,590	694	2,925	233	540	102	603	6	6,692
Calves (under 1 year)(*d*)	833	474	1,131	123	240	94	164	4	3,063
Other (1 year and over), i.e. steers, bullocks, speyed cows, etc.	549	291	1,773	72	263	43	240	1	3,232
Total cattle, other purposes	*2,973*	*1,458*	*5,829*	*429*	*1,042*	*239*	*1,007*	*11*	*12,987*
Total cattle and calves for all purposes	4,153	3,397	6,888	690	1,271	492	1,032	13	17,936

(*a*) Collected according to this classification for the first time in 1964. *See* text on p. 954. (*b*) As at 30 June 1966. (*c*) Mainly for meat production. (*d*) Includes vealers, and bull calves intended for service.

CATTLE, BY PURPOSE(*a*), AGE AND SEX: AUSTRALIA, 31 MARCH 1964 TO 1966

('000)

Classification	1964	1965	1966
Bulls (1 year and over) used or intended for service—			
Dairy breeds	99	95	90
Beef breeds	278	274	261
Total bulls	*377*	*369*	*351*
Cattle used or intended for production of—			
Milk or cream for sale—			
Cows—In milk	3,078	3,012	2,908
Dry			
Heifers—Springing (within 3 months of calving)	821	843	823
Other (1 year and over)			
Calves (under 1 year)	718	690	681
Milk or cream for use on rural holdings—			
House cows and heifers	218	202	186
Total cattle, production of milk, etc.	*4,835*	*4,747*	*4,598*
Cattle for other purposes(*b*)—			
Cows and heifers (1 year and over)	7,021	7,073	6,692
Calves (under 1 year)(*c*)	3,536	3,378	3,063
Other (1 year and over), i.e. steers, bullocks, speyed cows, etc.	3,286	3,248	3,232
Total cattle, other purposes	*13,842*	*13,699*	*12,987*
Total cattle and calves for all purposes	**19,055**	**18,816**	**17,936**

(*a*) Collected according to this classification for the first time in 1964. *See* text on p. 954. (*b*) Mainly for meat production. (*c*) Includes vealers, and bull calves intended for service.

For beef cattle and dairy cattle numbers prior to 1964 *see* pages 1056 and 1078 respectively of Year Book No. 50.

Meat research schemes

In November 1965 the Commonwealth Parliament passed legislation providing for the extension of the cattle and beef research scheme to cover beef, mutton and lamb research. Details of the beef research scheme were set out on page 1050 of Year Book No. 51. Under the new legislation the Cattle and Beef Research Committee was re-constituted as the Meat Research Committee, its powers and functions being the same as the former Committee as widened to include mutton and lamb research. The Meat Research Committee consists of twelve members—seven meat producer representatives, the Chairman of the Australian Meat Board, one representative from the Universities engaged in meat research, the Commonwealth Scientific and Industrial Research Organization, the Australian Agricultural Council, and the Department of Primary Industry. The new Committee came into being in March 1966 and the Cattle and Beef Research Committee ceased to exist from that date.

The scheme is financed from the Livestock Slaughter Levy (*see* below). The Commonwealth makes a matching contribution on a $1 for $1 basis to meet expenditure on research. The research is conducted by existing bodies such as the universities, C.S.I.R.O. and State Departments of Agriculture.

The Minister for Primary Industry has approved a beef research programme of just over $2,000,000 for 1966–67. This is approximately the same amount as in the previous year. As yet no programme has been formulated for mutton and lamb research.

The Livestock Slaughter Levy

The *Livestock Slaughter Levy Act* 1964–1966 imposed a levy on all cattle (over 200 lb dressed weight), sheep and lambs slaughtered within Australia for human consumption. These levies, operative from 1 August 1964, replace the charge imposed on meat exports and also include the cattle slaughter levy for beef research purposes imposed in 1960. (*See* page 909 of Year Book No. 51 for details.) The proceeds of the levies under the Livestock Slaughter Levy Act are for the purposes of meat market development (including the financing of the operations of the Australian Meat Board) and for research into the technical, scientific and economic problems of the meat industry. The rates of levy are not to exceed 75 cents for cattle, of which a maximum of 20 cents is for beef research, and 7.5 cents for sheep or lambs, of which a maximum of 3.75 cents is for sheep or lamb research.

Exports and imports of cattle

In 1965–66 the number of cattle exported was 7,315, valued at $932,000 (1964–65, 9,425 valued at $835,000). The bulk of the animals at present being exported are sent to the Philippines for slaughtering, the number exported thereto in 1965–66 being 3,567 head valued at $240,000. Prior to June 1958 small numbers of cattle were imported, consisting mainly of valuable animals for stud purposes. Since that date an embargo has been imposed on the import of cattle in order to prevent the introduction of the disease 'blue-tongue'.

Comparison with other countries

The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date.

CATTLE: NUMBERS IN VARIOUS COUNTRIES

Source (for countries other than Australia): *World Agricultural Production and Trade,* United States Department of Agriculture

('000)

Country	Year and month	Number p
India(*a*)	1962 (May)	236,000
United States of America	1966 (January)	108,862
U.S.S.R.	1966 (January)	93,400
Brazil(*a*)	1965 (December)	90,692
China (mainland)(*a*)	1960 (December)	65,400
Argentina	1965 (June)	45,000
Pakistan(*a*)	1961 (Estimate)	30,300
Mexico	1966 (Spring)	24,000
Ethiopia	1963 (Estimate)	22,000
France	1965 (October)	20,640
Australia	**1966 (March)**	**17,936**
Colombia	1965 (October)	17,078
Turkey(*a*)	1965 (December)	14,419
Germany, Federal Republic of	1965 (December)	13,680
South Africa	1966 (June)	12,184

(*a*) Includes buffaloes.

Horses

The number of horses in Australia reached a peak of 2,527,000 in 1919. Since then it has declined, because of mechanisation of transport and farming, and the number recorded at 31 March 1965 (the latest year for which complete figures are available) was 520,000. Particulars of horses are no longer collected in all States annually. An Australian total will next be available in respect of the year 1967 and, thereafter, at triennial intervals only.

A graph showing the number of horses in Australia since 1870 appears on plate 46, page 949.

HORSES: NUMBERS IN STATES AND TERRITORIES, 1962 TO 1966

('000)

31 March—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1962 . . .	168	61	217	25	40	9	41	1	562
1963 . . .	166	58	212	25	39	8	38	1	547
1964 . . .	163	56	206	(a) 25	39	8	38	1	(b) 536
1965 . . .	158	56	201	(a) 24	37	7	36	1	(b) 520
1966 . . .	151	n.a.	190	n.a.	35	n.a.	39	1	n.a.

(a) Estimated. (b) *See* South Australia.

Overseas trade in horses

Exports of Australian-bred horses in 1965–66 numbered 662, valued at $910,000, made up of horses for breeding (231 valued at $294,000), horses for racing (322 valued at $562,000, shipped principally to Singapore, Republic of Korea and New Zealand), and horses for other purposes (109 valued at $53,000). Horses imported into Australia in 1965–66 (560 valued at $1,773,000) were mainly from New Zealand and the United Kingdom.

Pastoral products: wool

With about one-sixth of the world's woolled sheep, Australia produces almost one-third of the world's wool and more than half the world's fine-quality merino wool. The bulk of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonised wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 968.

Wool marketing

Details of past wool marketing schemes and agreements, including the 1914–18 War Imperial Purchase Scheme, the British Australian Wool Realization Association Ltd, the 1939–45 War Acquisition Scheme, Joint Organization, and Minimum Reserve Price Plan, are given in previous issues of the Year Book.

More than ninety per cent of the Australian wool clip is disposed of at auction. (During both world wars, however, auction selling was suspended and replaced by bulk purchase schemes.) There are fourteen recognised wool-selling centres, namely Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Portland, Brisbane, Adelaide, Perth, Albany, Hobart, and Launceston. At these centres wool-selling brokers operate large stores where wool received from growers is held awaiting sale.

Each year a wool-selling programme is drawn up jointly by the selling brokers and wool-buyers on the basis of the expected clip. Selling dates and the quantities to be offered are then determined for each centre. Before each sale the selling brokers, who act as agents for the wool-growers, display a representative portion of the wool to be sold on show floors for buyers' inspection and valuation. Auction sales are attended by buyers purchasing on behalf of wool users in more than fifty countries.

Wool Marketing Committee of Inquiry

In 1961 the Commonwealth Government appointed an independent committee to inquire into the marketing and promotion of Australian wool and related matters (*see* Year Book No. 48, page 977, for further details). The Committee presented its report to the Government in 1962. Its most important recommendation was that wool promotion, research and testing should be brought under the control of a single body, which should also act as an advisory authority on wool marketing. This recommendation was implemented under the *Wool Industry Act* 1962–1966 which set up the Australian Wool Board.

Australian Wool Board

This Board consists of a chairman, six woolgrower representatives, three members with special qualifications, and a representative of the Commonwealth Government. The first chairman of the Board was appointed by the Minister for Primary Industry after consultation with the Australian Wool Industry Conference (*see* below), but subsequent chairmen are to be appointed on the nomination of the Board. The six woolgrower representatives are appointed by the Minister on the nomination of the Wool Industry Conference, and the three members with special qualifications are appointed from a panel of names submitted by the Conference. The Act provides that the latter members must be experienced in one of the following fields: wool marketing and manufacturing, research, finance, and commerce.

When the Board came into being on 1 May 1963 it took over the functions of the Australian Wool Bureau. On 1 July 1963 the Australian Wool Testing Authority became part of the Board, and on 1 January 1964 the Board took over the functions of the Wool Research Committee. Information on these three former instrumentalities appears in Year Book No. 48, pages 977–81.

Following the organisational changes carried out under the Wool Industry Act, the functions of the Board embrace the following activities.

Wool promotion in Australia and overseas by publicity and other means. Promotion overseas is carried out through the International Wool Secretariat, which is maintained jointly by the Wool Boards of Australia, New Zealand and South Africa.

Provision of a testing service for wool and wool products. This service is administered by a subsidiary board retaining the name Australian Wool Testing Authority.

Administration of wool research. The Board is responsible for preparing annual programmes of research expenditure which are subject to the approval of the Minister for Primary Industry. Two committees established by the Board, the Wool Production Research Advisory Committee and the Wool Textile Research Advisory Committee, assist in this task.

Investigation into all aspects of wool marketing on a continuing basis. The Wool Marketing Committee, an ancillary body appointed by the Board, assists in carrying out this function. The Board is required to report to the Australian Wool Industry Conference on its findings and advise it on measures which should be adopted to meet changing marketing conditions. However, the Board has no executive powers over marketing.

In July 1964 the Board, after an investigation by the Wool Marketing Committee, made recommendations to the Australian Wool Industry Conference for the introduction of a Reserve Price Plan for wool, which were put to woolgrowers in a referendum in December 1965. For details *see* Year Book No. 52, page 945.

Maintenance and administration of the wool stores which were entrusted to the Board by the Commonwealth Government. Further details concerning these stores appear in Year Book No. 48, page 978.

Other activities approved by the Minister for the benefit of the wool industry, including the operation of the Wool Statistical Service and the registration of wool classers. The Wool Statistical Service (described in more detail in Year Book No. 48, pages 977–8) provides comprehensive statistics on the Australian wool clip, while the registration of wool classers is designed to improve the standards of wool classing in Australia.

At present the main sources of finance for the various activities of the Board are a levy paid by woolgrowers and contributions by the Commonwealth Government.

The Australian Wool Industry Conference

This body was formed by woolgrowers in October 1962 to meet the need for an organisation with sufficient authority to speak on behalf of the woolgrowing industry as a whole. It is not a statutory body and consists of twenty-five members each from the Australian Woolgrowers' and Graziers' Council and the Australian Wool and Meat Producers' Federation, and, from October 1965, five members from the Australian Primary Producers' Union. The fifty-five member conference is presided over by an independent chairman.

The Conference makes recommendations to the Commonwealth Government on policy matters concerning the wool industry. Under the Wool Industry Act it is the responsibility of the Conference to nominate woolgrower representatives for appointment to the Australian Wool Board and to prepare panels of names from which the three Board members with special qualifications are selected. Under the Wool Tax Acts (*see* below) the Conference is also responsible for recommending to the Commonwealth Government what rates of levy should be paid by woolgrowers to finance the activities of the Wool Board.

Wool levy

Since 1936 a statutory levy has been collected from woolgrowers to finance wool promotion activities. The initial rate of 5c a bale was increased at the request of woolgrowers to 20c a bale in 1945 and 40c a bale in 1952, the latter rate continuing until 1960. Further details regarding the operation of this levy prior to 1957 appear in Year Book No. 48, page 978.

Under legislation passed in 1957 provision was also made for the payment by woolgrowers of a contribution for wool research which was fixed at 20c a bale. In 1960 the wool promotion levy was raised to 50c a bale, and the following year it was increased further to $1 a bale. The operation of this rate was subsequently extended for 1962–63 and 1963–64.

On 1 July 1964 the basis of collecting the woolgrowers' combined levy for wool promotion and research was changed from the existing unit charge per bale to a percentage of the gross sale value of the wool. The maximum rate was set at 2 per cent and provision was made for annual adjustments to the operative rate, not greater than that maximum, to yield the required amounts. At the same time the levy for wool promotion was increased from $1 a bale to the equivalent of $2.70 a bale, but the levy for research remained unchanged at the equivalent of 20c a bale. For 1964–65 the rate for the combined levy for wool promotion and research was set at 1⅞ per cent and for 1965–66 and 1966–67 it was at the full rate of 2 per cent. In February 1967 the Australian Wool Industry Conference agreed that the collection of the levy on the basis of a percentage of the gross sale value of wool should continue for the three years commencing 1967–68. The 2 per cent maximum rate of levy is to be retained as are the provisions for annual adjustments to the operative rates.

The imposition and collection of the combined levy from woolgrowers is governed by six complementary Acts, the Wool Tax Acts (Nos. 1 to 5) 1964 and the *Wool Tax Administration Act* 1964–1966.

Commonwealth Government's contributions to wool research and promotion

In 1945 the Commonwealth Government commenced contributing on a statutory basis to wool research. Initially the contribution was at the rate of 20 cents a bale, but this was doubled in 1957 to 40 cents a bale. At this rate the Commonwealth Government contributed about $2,000,000 to wool research in 1965–66, and a similar sum is expected to be provided in 1966–67.

Prior to 1964–65 the Commonwealth Government had not contributed to wool promotion. However, following representations made by the Australian Wool Industry Conference, the Commonwealth Government undertook to provide assistance to the Australian Wool Board to finance its commitment to the vastly expanded wool promotion activities of the International Wool Secretariat. The five-year wool promotion programme, announced by the Secretariat, envisaged an increase in the Wool Board's annual contribution to overseas wool promotion campaigns from the then level of $5,000,000 to about $20,000,000.

In October 1963 the Commonwealth Government agreed to match on a $1 for $1 basis any increase in contributions by wool growers for wool promotion in excess of the levy of $1 a bale then in force. This arrangement operated from 1 July 1964 and was to be reviewed at the end of the period. In January 1964 the Wool Industry Conference agreed to increase the growers' levy to the equivalent of $2.70 a bale, which resulted in a Commonwealth commitment of $1.70 a bale. In aggregate this commitment required a Commonwealth contribution for promotion of about $8,500,000 a year, commencing in 1964–65.

In November 1966 the Commonwealth Government stated that during the three years commencing July 1967 it would match the total funds contributed by woolgrowers for wool promotion and research on a $1 for $1 basis up to a maximum of $14,000,000 a year for both promotion and research. This offer was formally accepted by the Wool Industry Conference in February 1967.

Wool production

Wool as shorn from the sheep contains an appreciable amount of grease, dirt and other extraneous matter, and is termed 'greasy wool'. The quantity of grease and other matter in a fleece differs not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. To allow for this factor, the weight of greasy wool is sometimes given on a 'clean' basis, i.e. minus the estimated amount of impurities. The net wool fibre content of greasy wool, expressed as a percentage, is termed 'clean yield'.

From 1946–47 to 1952–53 the Australian Wool Realization Commission, and from 1953–54, the Wool Statistical Service, have assessed annually the clean yield of the Australian wool clip. During the period of assessment the clean yield showed a continuous rise up to 1951–52, when it reached 57.5 per cent. It has since fluctuated between 55.8 per cent and 57.7 per cent. It was 56.4 per cent in 1965–66.

Wool scoured, washed and carbonised in Australia before export, however, has a clean yield somewhat lower than for the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonised includes a large proportion of dirty and low-grade wool. In recent years it has been slightly over 50 per cent. The quantity of this wool exported during 1965–66 was about 11 per cent of the total raw wool exports (excluding wool exported on skins) in terms of greasy. For the clean yield of Australian scoured wools exported a standard factor of 93 per cent is taken.

The production of wool in the States and Territories varies broadly in accordance with the number of sheep depastured and with seasonal conditions which affect clip per head (*see* page 962). In general, however, South Australia obtains from its large-framed Merinos a much heavier fleece per sheep than the Australian average. In addition, as a result of better management (improved pastures, fodder conservation, better breeding, control of diseases, etc.), the long-term trend has been towards higher fleece weights, although the Australian average for sheep and lambs combined in 1965–66, at 8.54 lb, was the lowest since 1957–58 when it was 8.22 lb.

The following table shows details of total wool (i.e. shorn, dead and fellmongered, and exported on skins) produced by each of the States and Territories during the years 1961–62 to 1965–66 compared with averages for the three-year periods ended 1938–39, 1948–49 and 1958–59. A graph showing the production of wool in relation to sheep numbers from 1870 onwards appears on plate 47 opposite.

PRODUCTION OF WOOL (GREASY BASIS): STATES AND TERRITORIES, 1936–37 TO 1965–66

('000 lb)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39 . .	478,595	169,256	169,325	88,699	73,141	15,728	35	1,822	996,601
1948–49 . .	439,363	200,229	151,679	108,126	95,031	16,272	305	1,927	1,012,932
1958–59 . .	633,938	298,302	217,062	187,225	160,402	30,141	277	2,371	1,529,718
Year—									
1961–62 . .	701,168	330,716	230,333	206,985	192,161	34,469	98	2,645	1,698,575
1962–63 . .	693,734	316,705	233,638	207,344	184,123	34,561	100	2,343	1,672,548
1963–64 . .	731,316	334,288	255,386	210,500	216,574	34,007	91	2,552	1,784,714
1964–65 . .	706,061	361,530	251,426	215,736	207,035	39,671	89	2,475	1,784,023
1965–66 . .	579,475	366,943	192,773	232,296	247,530	41,858	88	1,873	1,662,836

The bulk of the Australian wool production (about 91 per cent in recent years) is shorn from live sheep. The remainder is obtained by fellmongering (about 2 per cent) or is exported on skins (about 7 per cent). The following table shows details of total wool production according to method of obtaining wool, and also the gross value of wool produced. Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

QUANTITY (GREASY BASIS) AND VALUE OF WOOL PRODUCED AUSTRALIA, 1936-37 TO 1965-66

Period	Shorn (incl. crutchings)	Dead and fell-mongered	Exported on skins	Total production	
				Quantity	Value
	'000 lb	'000 lb	'000 lb	'000 lb	$'000
Average for three years ended—					
1938–39 .	889,338	49,280	57,983	996,601	106,850
1948–49 .	902,007	50,660	60,265	1,012,932	305,072
1958–59 .	1,411,424	36,804	81,490	1,529,718	788,290
Year—					
1961–62 .	1,546,318	36,192	116,065	1,698,575	745,108
1962–63 .	1,515,932	32,854	123,762	1,672,548	800,524
1963–64 .	1,631,962	28,688	124,064	1,784,714	1,023,442
1964–65 .	1,629,412	26,865	127,746	1,784,023	840,552
1965–66 .	1,503,457	24,411	134,968	1,662,836	808,437

Average fleece weight

The average weights of sheep and lamb fleeces shorn in each of the States and Territories of Australia are shown in the following table for each season from 1961–62 to 1965–66.

SHEEP NUMBERS AND WOOL PRODUCTION

AUSTRALIA, 1870 TO 1966

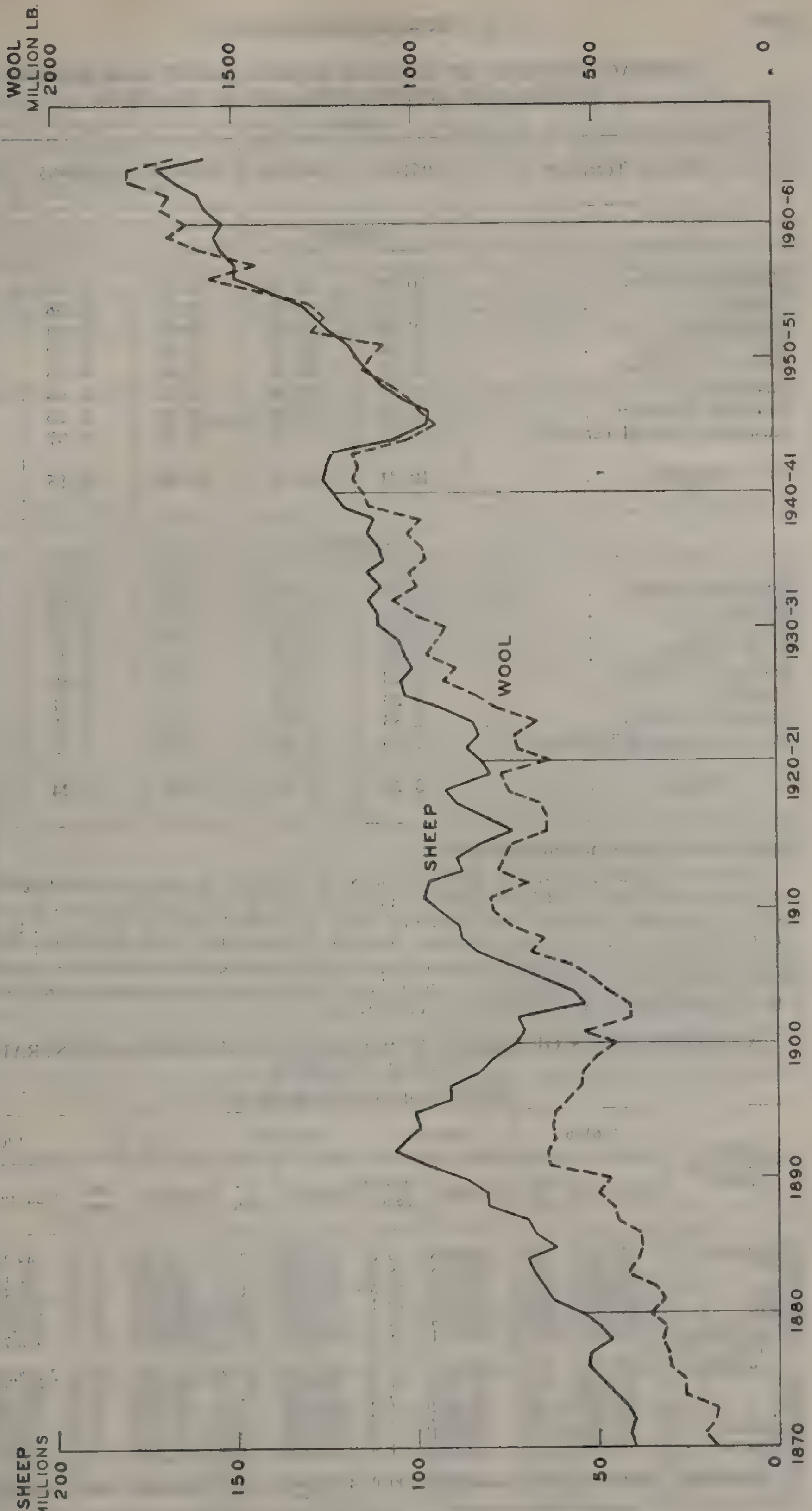


PLATE 47

AVERAGE WEIGHT OF FLEECES SHORN (SHEEP AND LAMBS) STATES AND TERRITORIES, 1961-62 TO 1965-66

(lb)

State or Territory	1961–62	1962–63	1963–64	1964–65	1965–66
SHEEP					
New South Wales . . .	10.06	9.94	10.19	9.81	8.65
Victoria	10.17	9.59	10.09	10.08	9.63
Queensland	9.89	9.83	10.41	9.65	8.79
South Australia . . .	12.86	12.29	12.89	12.49	12.72
Western Australia . . .	10.90	10.09	11.46	10.06	10.74
Tasmania	9.39	9.44	9.14	10.64	10.34
Northern Territory . . .	8.50	10.94	10.36	9.26	8.13
Australian Capital Territory .	9.87	8.88	9.59	9.07	7.33
Australia . . .	**10.41**	**10.11**	**10.60**	**10.15**	**9.63**
LAMBS					
New South Wales . . .	3.30	3.34	3.39	3.34	2.99
Victoria	2.92	2.82	2.76	2.97	2.72
Queensland	3.89	3.85	3.99	3.78	3.56
South Australia . . .	3.81	3.63	3.71	3.79	3.73
Western Australia . . .	2.84	2.55	2.91	2.69	2.90
Tasmania	2.23	2.35	2.12	2.31	2.48
Northern Territory . . .	2.33	5.00	4.34	3.88	3.00
Australian Capital Territory .	1.66	1.80	1.61	1.93	1.82
Australia . . .	**3.25**	**3.20**	**3.26**	**3.24**	**3.03**

Classification of wool according to quality

The following table provides a detailed analysis of wool sold at auction, according to quality, for the years 1961–62 to 1965–66. These data are compiled by the Wool Statistical Service on the basis of catalogues of auction sales. 'Quality' ('64's, 60's, 58's,' etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1 lb of tops (combed wool) of that particular wool.

CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(*a*): AUSTRALIA 1961-62 TO 1965-66

(Bales of approximately 300 lb)

Pre-dominating quality	1961–62		1962–63		1963–64		1964–65		1965–66	
	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent
70's and finer .	115,434	2.4	138,238	3.0	132,620	2.7	145,267	2.9	149,305	3.3
64/70's . .	381,683	8.0	413,195	8.9	373,658	7.6	409,279	8.2	402,134	8.8
64's . .	572,549	12.1	582,315	12.5	567,559	11.6	620,453	12.5	576,499	12.7
64/60's . .	475,487	10.0	469,010	10.1	482,770	9.9	486,575	9.7	373,796	8.2
60/64's . .	1,048,912	22.1	1,043,674	22.4	1,149,957	23.4	1,108,668	22.2	896,070	19.7
60's and 60/58's	915,501	19.3	854,771	18.4	964,274	19.7	930,821	18.7	900,760	19.8
Total, 60's and finer .	*3.509,566*	*73.9*	*3,501,203*	*75.3*	*3,670,838*	*74.9*	*3,701,063*	*74.2*	*3,298,564*	*72.5*
58's . .	578,588	12.2	527,493	11.3	566,904	11.6	586,708	11.8	591,790	13.0
56's . .	383,238	8.1	353,344	7.6	382,384	7.8	406,878	8.2	386,169	8.5
50's . .	146,657	3.1	135,256	2.9	141,638	2.9	153,079	3.1	133,574	2.9
Below 50's .	49,875	1.1	45,631	1.0	45,675	0.9	51,534	1.0	44,887	1.0
Oddments .	75,708	1.6	86,058	1.9	92,622	1.9	82,742	1.7	94,268	2.1
Grand total	**4,743,632**	**100.0**	**4,648,985**	**100.0**	**4,900,061**	**100.0**	**4,982,004**	**100.0**	**4,549,252**	**100.0**

(*a*) All greasy wool sold at auction except 'wool re-offered account buyer'.

Price and value

During 1965–66 the price of greasy wool sold in the selling centres of Australia averaged 50.1c per lb compared with the average price of 47.8c per lb in 1964–65 and 58.1c per lb in 1963–64. These prices are as compiled by the National Council of Wool Selling Brokers and represent the average price realised for all greasy wool, of whatever type or quality, marketed during the years indicated.

Fluctuation in Australian wool prices has a marked effect on the nation's rural and national income. In 1945–46 the gross value of wool production was $117,194,000, representing 17.4 per cent of the gross value of production of all rural industries, while in 1950–51, when prices reached a peak, wool was valued at $1,303,804,000 or 55.6 per cent of the total value of production for all rural industries. The value of wool production fluctuated considerably in subsequent years. In 1965–66 it was $808,437,000, 24.1 per cent of the gross value of production of rural industries.

ESTIMATED GROSS VALUE OF TOTAL WOOL PRODUCTION: STATES AND TERRITORIES, 1961-62 TO 1965-66(*a*)

($'000)

Season	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62 .	309,840	148,438	101,274	85,800	82,520	15,752	36	1,448	745,108
1962–63 .	332,340	158,012	115,462	92,514	82,988	17,772	40	1,396	800,524
1963–64 .	416,834	208,700	141,458	113,410	119,862	21,352	50	1,776	1,023,442
1964–65 .	336,675	176,041	117,218	94,328	95,804	19,051	39	1,396	840,552
1965–66 .	278,295	193,797	90,961	103,638	118,198	22,405	41	1,105	808,437

(*a*) Includes shorn, dead and fellmongered wool and wool exported on skins.

Stocks of wool

Stocks of raw wool held in Australia at 30 June 1966 amounted to 291.0 million lb (greasy basis), of which 66.3 million lb (41.6 million lb as greasy and 24.7 million lb as scoured and carbonised) was held by woollen mills, wool scourers and fellmongers, and 224.7 million lb, assumed to be all greasy, was held by brokers. Of the wool held by brokers, 62.9 million lb was unsold wool and 161.8 million lb was sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

Consumption of wool

Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonised wool used on the woollen and worsted systems (mill consumption), plus quantities used in such processes as felting. Consumption estimates compiled on this basis have obvious defects. as they disregard overseas trade in semi-processed wool (e.g. tops and yarns) as well as woollen goods. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia are shown in the following table for the years 1961–62 to 1965–66.

ESTIMATED CONSUMPTION OF RAW WOOL: AUSTRALIA, 1961-62 TO 1965-66

('000 lb)

Year	Greasy basis			Clean equivalent		
	Used on woollen and worsted systems	Used for felt manufacture (including hats)	Total	Used on woollen and worsted systems	Used for felt manufacture (including hats)	Total
1961–62 . . .	117,555	4,328	121,883	70,682	2,056	72,738
1962–63 . . .	120,238	3,868	124,106	72,295	1,837	74,132
1963–64 . . .	124,591	3,568	128,159	74,441	1,695	76,136
1964–65 . . .	116,179	2,826	119,005	71,206	1,342	72,548
1965–66 . . .	115,199	2,016	117,215	70,606	958	71,564

As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown above is over-stated to this extent. The series entitled 'Estimated consumption of processed wool in Australia' provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown in the following table for the years 1961–62 to 1965–66. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for overseas trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF PROCESSED WOOL: AUSTRALIA

1961-62 TO 1965-66

('000 lb)

Year	Greasy basis				Clean equivalent			
	Worsted yarn used (*a*)(*b*)	Woollen yarn used (*b*)	Scoured wool used for felt manufacture (including hats)	Total	Worsted yarn used (*a*)(*b*)	Woollen yarn used (*b*)	Scoured wool used for felt manufacture (including hats)	Total
1961–62	45,173	29,316	4,328	78,817	26,543	18,143	2,056	46,742
1962–63	45,967	31,835	3,868	81,670	27,135	19,753	1,837	48,725
1963–64	45,733	31,061	3,568	80,362	26,686	19,150	1,695	47,531
1964–65	46,179	33,958	2,826	82,963	27,910	21,224	1,342	50,476
1965–66	39,976	36,326	2,016	78,318	24,162	22,704	958	47,824

(*a*) Includes hand knitting yarns used. (*b*) Includes wool content of yarns containing a mixture of wool and other fibres.

Quantities of wool exported

Of the total shipments of greasy and slipe wool in 1965–66, 35 per cent went to Japan, 10 per cent to Italy, 10 per cent to the United Kingdom, 10 per cent to France and 7 per cent to the Federal Republic of Germany.

EXPORTS OF GREASY AND SLIPE WOOL: AUSTRALIA, 1961-62 TO 1965-66

('000 lb actual weight)

Country of consignment	1961–62	1962–63	1963–64	1964–65	1965–66
Japan	416,970	386,956	433,944	424,175	467,587
Italy	146,369	119,409	127,556	95,175	137,405
United Kingdom	207,660	204,412	229,308	192,961	133,696
France	138,483	131,769	138,798	122,283	130,903
Germany, Federal Republic of	66,773	74,474	86,350	85,944	91,006
Belgium-Luxembourg	108,699	98,572	101,699	106,391	88,802
United States of America	35,024	46,314	27,590	67,093	72,720
U.S.S.R.	40,753	49,445	45,595	50,681	29,542
Poland	33,711	21,662	22,600	22,983	28,441
Mexico	15,225	15,126	19,085	28,065	21,747
Other	120,468	130,829	150,276	140,648	122,490
Total	**1,330,135**	**1,278,968**	**1,382,801**	**1,336,399**	**1,324,339**

EXPORTS OF SCOURED AND WASHED. AND CARBONISED WOOL AUSTRALIA, 1961-62 TO 1965-66

('000 lb actual weight)

Country of consignment	1961–62	1962–63	1963–64	1964–65	1965–66
United States of America	20,564	25,469	23,063	27,834	27,671
United Kingdom	15,344	17,497	17,566	12,812	14,521
Italy	9,636	8,582	8,340	6,292	7,928
Germany, Federal Republic of	8,267	7,314	7,517	8,997	7,531
Japan	7,055	5,796	4,891	4,122	5,594
Iran	2,322	3,173	2,428	3,513	4,668
Canada	5,470	2,981	3,398	4,966	2,925
France	5,089	4,251	3,205	3,268	2,877
Hong Kong	60	459	1,435	792	2,439
China, Republic of (Formosa)	753	1,010	2,011	1,853	1,858
Belgium-Luxembourg	1,566	1,541	1,413	2,466	1,703
Other	23,178	23,840	12,950	10,538	9,048
Total	**99,304**	**101,913**	**88,217**	**87,453**	**88,763**

EXPORTS OF CARDED OR COMBED WOOL, NOILS AND WOOLWASTE AUSTRALIA, 1961-62 TO 1965-66

('000 lb actual weight)

	1961–62	1962–63	1963–64	1964–65	1965–66
Carded or combed—Tops	21,438	21,631	25,932	19,232	22,909
Other		10	177	17	175
Noils	3,957	4,794	5,006	4,066	3,734
Waste—Soft wool	2,580	3,121	2,661	2,393	2,734
Hard wool	2,154	3,181	3,448	2,595	2,891

The following table shows the estimated greasy and clean weights of exports of raw and semi-processed wool for the years 1961–62 to 1965–66. As the figures in the following table are in terms of 'greasy' or 'clean' basis, they differ from those in the preceding tables which represent actual weight shipped.

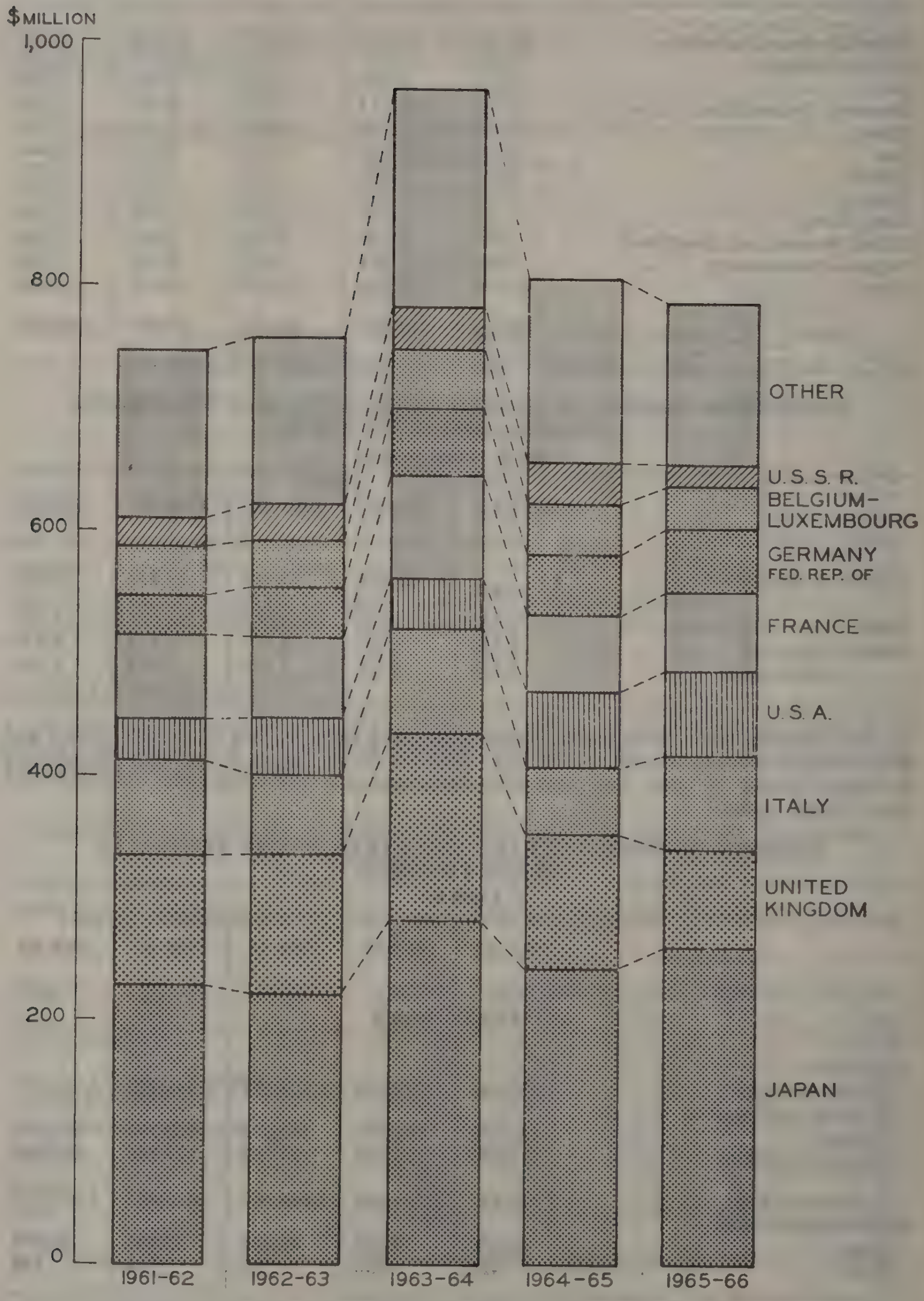
EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA 1961-62 TO 1965-66

('000 lb)

	1961–62	1962–63	1963–64	1964–65	1965–66
GREASY BASIS					
Raw wool—					
Greasy and slipe	1,328,343	1,279,334	1,383,271	1,336,920	1,324,764
Scoured and washed and carbonised	184,249	191,208	162,272	160,779	163,162
Exported on skins	116,065	123,762	124,064	127,746	134,968
Total raw wool	*1,628,657*	*1,594,304*	*1,669,607*	*1,625,445*	*1,622,894*
Semi-processed wool—					
Tops	40,089	39,368	46,445	32,694	38,969
Yarn	425	436	707	354	530
Total raw and semi-processed wool	**1,669,171**	**1,634,108**	**1,716,759**	**1,658,493**	**1,662,393**

VALUE OF WOOL EXPORTS(a)

AUSTRALIA, 1961-62 TO 1965-66



(a) EXCLUDES WOOL EXPORTED ON SHEEPSKINS

PLATE 48

EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA

1961–62 TO 1965–66—*continued*

('000 lb)

	1961–62	1962–63	1963–64	1964–65	1965–66
CLEAN EQUIVALENT					
Raw wool	936,749	912,148	969,007	935,755	926,819
Semi-processed wool	24,039	23,394	27,389	19,819	23,684
Total	**960,788**	**935,542**	**996,396**	**955,574**	**950,503**

Value of wool exported

The value of wool (other than wool on sheepskins) exported from Australia during 1965–66 was 30 per cent of the total value of exports of merchandise of Australian origin, while the proportion for the five years ended 1965–66 averaged 33 per cent. The value for the five years ended 1965–66, together with the principal countries to which wool was exported, is shown in the following table.

VALUE OF WOOL EXPORTS: AUSTRALIA(*a*), 1961–62 TO 1965–66

($'000)

Country of consignment	1961–62	1962–63	1963–64	1964–65	1965–66
Japan	229,132	222,234	282,172	242,549	259,731
United Kingdom	106,582	114,004	153,528	110,015	79,857
Italy	77,054	65,260	84,014	54,515	76,630
United States of America	33,732	45,904	41,240	62,233	68,749
France	64,902	66,538	83,134	61,799	64,990
Germany, Federal Republic of	34,916	40,940	55,830	50,179	51,174
Belgium-Luxembourg	40,600	37,906	48,268	42,664	34,059
U.S.S.R.	22,898	29,142	33,990	31,681	18,588
Other	135,238	136,784	178,704	150,215	131,066
Total	**745,054**	**758,712**	**960,880**	**805,850**	**784,844**

(*a*) Excludes wool exported on sheepskins.

World sheep numbers and wool production

The following table shows particulars of the woolled sheep numbers and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred, and carpet type wool for the latest available years.

In 1965–66 Australia produced 29 per cent of the world total of all types of wool. Other principal wool producers were New Zealand with 12 per cent of the world total, Argentina, 8 per cent, South Africa, 6 per cent, and United States of America, 4 per cent. Production in the U.S.S.R., China and eastern European countries together amounted to 20 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type.

ESTIMATED WORLD WOOLLED SHEEP NUMBERS AND PRODUCTION OF WOOL, 1963-64 TO 1965-66

(*Source* for countries other than Australia: Reports published by the Commonwealth Secretariat, London)

Country	Sheep numbers (million)			Wool production (million lb—greasy basis)		
	1963–64	1964–65	1965–66 (*a*)	1963–64	1964–65	1965–66
Australia	165	171	158	1,785	1,784	1,663
New Zealand	51	54	57	617	623	695
Argentina	48	48	49	395	419	430
South Africa	36	37	38	303	296	326
United States of America	28	25	25	281	255	241
Uruguay	23	22	22	192	187	185
United Kingdom	30	30	30	127	127	129
U.S.S.R., China, Eastern Europe(*b*)	239	231	236	1,149	1,101	1,136
Other	310	312	312	884	893	908
World total	**930**	**930**	**927**	**5,733**	**5,685**	**5,713**
Type of wool—						
Apparel type—						
Merino				2,349	2,319	2,263
Crossbred				2,189	2,158	2,222
Carpet type				1,195	1,208	1,228

(*a*) Provisional. (*b*) This group comprises Albania, Bulgaria, China and Dependencies, Czechoslovakia, East Germany, Hungary, Outer Mongolia, Poland, Romania, Tibet, and U.S.S.R.

Principal importing countries and sources of supply

The following table, prepared from information published by the Commonwealth Secretariat, furnishes, in respect of the principal importing countries, details of their imports of wool for 1965 together with the chief sources of supply. The quantities imported refer to the actual weight of wool, without distinguishing between greasy and scoured, except in the case of the United States of America, where estimated clean content of raw wool is quoted.

PRINCIPAL WOOL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1965

(*Source:* Information published by the Commonwealth Secretariat, London)

(Million lb)

Importing country	Quantity imported from— (*a*)					Total imports
	Australia	New Zealand	Argentina	South Africa	Other countries	
United Kingdom	182.5	135.3	45.0	45.7	149.8	558.3
Japan	453.6	38.4	16.6	33.6	4.5	546.7
France	145.3	94.8	21.7	50.8	16.2	328.8
Italy	117.9	33.5	23.8	32.0	56.5	263.7
Belgium	108.0	49.8	18.2	0.8	47.0	223.8
Germany, Federal Republic of	88.9	32.8	14.9	36.1	50.1	222.8
United States of America(*b*)	71.9	67.3	47.1	22.9	61.8	271.0

(*a*) Actual weight of greasy and scoured wool. (*b*) Imports are in terms of estimated clean content of greasy and scoured wool. Actual weight of total United States of America imports was 369.2 million lb.

As a considerable transit trade exists between European countries, it must not be assumed that the whole of the imports recorded by these countries is retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom and Belgium.

Pastoral products: meat

Australian Meat Board

The Australian Meat Board, which was re-constituted under the *Meat Industry Act* 1964–1966, is the body responsible for controlling the external marketing of Australian beef, mutton and lamb. Powers and membership of the Board prior to its re-constitution in 1964 are set out on page 801 of Year Book No. 40. The Board's primary function is to ensure that Australian meat exports are marketed in a manner which will safeguard the long-term interests of the Australian meat industry. It consists of representatives of producers, exporters and the Commonwealth Government, and an independent Chairman.

The Board regulates overseas marketing of Australian meat by means of an export licensing system. It has power of control over the kinds of meat that may be exported by licensed exporters to particular places, or to particular agents and representatives. The Board also has power to undertake measures to promote the sale and consumption of meat both in Australia and overseas, and it may purchase and sell meat in its own right for the purpose of market development. However, the exercise of this power is limited to activities aimed at meeting special marketing problems or circumstances which preclude the effective participation of private traders. The Board may also purchase and sell meat, with the approval of the Minister for Primary Industry, for the purpose of administering any international arrangements to which Australia may be a party. *See also* Livestock Slaughter Levy, page 956.

United Kingdom long-term purchase arrangements

Details of the long-term meat contracts with the United Kingdom from 1939 to 1952 and of the Fifteen Year Meat Agreement (1952–67) are given on page 710 of Year Book No. 41 and in earlier issues. In September 1953 the trade in meat between the United Kingdom and Australia reverted to private traders. The main features of the arrangements were given in Year Book No. 47, page 960. Details of minimum prices operating and deficiency payments received in recent years under private trading appear in Year Book No. 48 (page 973) and No. 50 (page 1068).

Lamb Guarantee Scheme

Since the 1962–63 lamb export season the Australian Meat Board has guaranteed exporters a minimum price on all lambs 36 lb and under shipped to the United Kingdom. For the 1962–63 and 1963–64 seasons these prices were set at 15c per lb f.o.b. for the period September to November and 13.8c per lb for the following three months, December to February. For the 1964–65 and 1965–66 lamb export seasons the corresponding prices were 15.8c per lb and 14.6c per lb. For the 1966–67 season the prices were set at 16.0c per lb and 14.5c per lb. The higher guaranteed price for the initial period is aimed at stimulating early shipments of lamb, because normally the most opportune time for selling Australian lamb in the United Kingdom market is early in the export season. Any commitment by the Board is payable from moneys accrued in the Lamb Deficiency Payments Account under the Fifteen Year Meat Agreement.

United States-Australia Meat Agreement

In February 1964 the Governments of Australia and the United States concluded an agreement for the regulation of beef, veal and mutton exports from Australia to the United States with the object of promoting the orderly development of the trade in these classes of meat between the two countries. The agreement sought to preserve approximately the current pattern of trade in beef and mutton and to permit Australia to obtain a reasonable share of the expected market growth. Under the agreement Australia undertook to limit its exports of beef, veal and mutton to the United States to 242,000 tons in 1964, 251,000 tons in 1965, and 260,000 tons in 1966. There is provision for this figure to be increased in succeeding years in accordance with the estimated rate of increase in the total United States meat market. The agreement is subject to review every three years.

In August 1964 the United States Congress passed a Bill providing for the imposition of quotas on imports of beef and veal, mutton and goatmeat from all sources, in 1965 and subsequent years, if imports of these items are estimated by the United States Department of Agriculture to equal or exceed 110 per cent of a basic quantity. The basic quantity, 323,840 tons, is approximately the average of imports from 1959 to 1963. This quantity may be increased or decreased in any future calendar year by a percentage equal to that by which the United States average annual commercial production of beef and veal, mutton and goatmeat has changed since the base period 1959-1963. For this purpose the level of domestic production is the average of estimated commercial production for the year in which quotas may be applied and the two preceding years. An increase of 24.7 per cent in the basic quantity was set for 1967, providing for allowable imports of approximately 403,800 tons (397,300 tons in 1966) and an import ceiling, at which quotas would be established, of about 444,200 tons (437,000 tons in 1966). On the basis of the first official estimate of United States meat imports during 1967, the United States Secretary for Agriculture announced on 23 December 1966 that it would not be necessary to invoke meat import quotas for 1967. However, if a later quarterly estimate in 1967 indicated that the import ceiling would be equalled or exceeded then quotas could be imposed.

Cattle slaughtered

The numbers of cattle slaughtered during each of the years ended June 1962 to 1966 compared with averages for the three-year periods ended June 1939, 1949 and 1959, are shown in the following table.

CATTLE (INCLUDING CALVES) SLAUGHTERED STATES AND TERRITORIES, 1936-37 TO 1965-66

('000)

Period	Slaughterings passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938–39	1,169	881	1,178	163	131	49	5	3	3,579	3,628
1948–49	1,094	759	1,119	168	146	42	14	4	3,346	3,378
1958–59	1,745	1,313	1,689	274	216	116	24	11	5,388	5,463
Year—										
1961–62	1,609	1,311	1,584	201	241	135	25	8	5,115	5,167
1962–63	1,809	1,562	1,804	254	308	158	24	12	5,931	5,995
1963–64	1,930	1,760	1,857	279	373	176	50	12	6,437	6,484
1964–65	2,157	1,879	1,960	275	327	174	59	13	6,844	6,902
1965–66	1,780	1,829	1,888	277	315	154	69	11	6,323	6,371

Production of beef and veal

Details of the production of beef and veal during each of the years ended June 1962 to 1966, compared with averages for the three-year periods ended June 1939, 1949 and 1959, are shown in the following table.

PRODUCTION OF BEEF AND VEAL (CARCASS WEIGHT) STATES AND TERRITORIES, 1936-37 TO 1965-66

('000 tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39	181	123	199	26	28	10	1	1	569
1948–49	160	106	206	27	30	9	3	1	542
1958–59	248	176	305	41	41	19	5	2	838
Year—									
1961–62	234	176	278	30	47	20	5	2	791
1962–63	263	214	314	36	56	24	5	2	914
1963–64	286	228	327	40	66	26	10	2	985
1964–65	303	246	326	37	57	26	12	2	1,010
1965–66	245	239	314	37	58	23	15	2	931

Consumption of beef and veal

The highest post-war consumption of beef and veal (including canned beef and veal) was 132.7 lb per head in 1956–57. With the buoyant overseas market for beef and the high prices ruling in Australia during the following four years, consumption per head fell substantially, and in 1960–61 amounted to only 88.3 lb. In 1965–66 consumption per head was 97.2 lb, of which 93.2 lb was carcass meat and 4.0 lb was canned meat (in terms of carcass equivalent).

PRODUCTION AND DISPOSAL OF BEEF AND VEAL (CARCASS WEIGHT) AUSTRALIA, 1936-37 TO 1965-66

Period	Net change in stocks	Production	Exports (a)	For canning	Apparent consumption in Australia	
					Total	Per head per year
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
Average for three years ended—						
1938–39 .	n.a.	569	121	18	430	140.3
1948–49 .	+ 2	542	102	67	373	109.1
1958–59 .	+ 5	838	209	85	538	123.8
Year—						
1961–62 .	+ 6	791	299	44	442	93.4
1962–63 .	..	914	385	45	485	100.5
1963–64 .	+ 4	985	423	44	515	104.8
1964–65 .	+ 3	1,010	457	48	502	100.2
1965–66 .	..	931	412	43	476	93.2

(a) Includes carcass equivalent of boneless beef exported and all fresh and frozen meat shipped as ships' stores.

Exports of beef and veal

In 1965–66 chilled beef exports were 95,000 lb valued at $37,000, while frozen beef exports amounted to 593,255,000 lb valued at $189,725,000.

While beef and veal were previously shipped largely in carcass form, there has been in recent years a substantial increase in the amount of boneless beef exported. From 1958–59 to 1965–66 the quantity of boneless beef shipped exceeded that exported in carcass form. The trade in boneless beef has been developed principally with the United States of America. Since 1958–59 the United States has surpassed the United Kingdom as the principal market for Australian beef exports, the United Kingdom now occupying second place. The total value of beef and veal shipped to these two countries during 1965–66 was $114,481,000 and $54,619,000 respectively.

EXPORTS OF FROZEN AND CHILLED BEEF AND VEAL(a): AUSTRALIA 1961-62 TO 1965-66

Year	Exports of frozen and chilled beef		Exports of frozen veal		Exports of frozen and chilled beef and frozen veal	
	Quantity	Value	Quantity	Value	Quantity	Value
	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.
1961–62 . .	444,762	116,172	5,834	1,508	450,596	117,680
1962–63 . .	576,504	155,962	7,624	2,074	584,128	158,036
1963–64 . .	620,613	173,731	9,489	2,791	630,102	176,522
1964–65 . .	679,989	192,404	27,919	7,958	707,908	200,363
1965–66 . .	593,350	189,762	19,260	5,714	612,610	195,477

(a) Actual weight shipped, not carcass equivalent.

Sheep slaughtered

The following table shows the numbers of sheep slaughtered during each of the years ended June 1962 to 1966, compared with averages for the three-year periods ended June 1939, 1949 and 1959.

SHEEP (INCLUDING LAMBS) SLAUGHTERED: STATES AND TERRITORIES 1936-37 TO 1965-66

('000)

Period	Slaughterings passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938–39	6,520	7,891	1,088	1,762	1,216	364	..	25	18,866	18,925
1948–49	6,367	6,413	1,066	1,863	1,458	396	3	47	17,613	17,650
1958–59	7,857	9,058	1,429	2,917	2,059	775	3	71	24,169	24,278
Year—										
1961–62	11,526	12,467	2,417	3,140	2,489	1,160	3	86	33,288	33,373
1962–63	11,719	12,830	2,125	3,467	2,467	1,095	3	108	33,813	33,911
1963–64	11,934	12,628	2,407	2,996	2,137	1,127	3	117	33,349	33,440
1964–65	11,739	12,543	2,933	3,100	2,056	987	4	111	33,472	33,587
1965–66	11,067	13,332	2,769	3,474	2,535	1,164	2	92	34,435	34,571

Production of mutton and lamb

Details of the production of mutton and lamb in each State and Territory in the years 1961–62 to 1965–66, compared with averages for the three-year periods ended June 1939, 1949 and 1959, are shown in the following table.

PRODUCTION OF MUTTON AND LAMB (CARCASS WEIGHT) STATES AND TERRITORIES, 1936-37 TO 1965-66

(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39	103,884	136,927	20,121	30,574	20,928	6,129	2	413	318,978
1948–49	109,084	111,677	18,587	34,772	23,846	7,214	64	839	306,083
1958–59	135,256	164,580	25,845	50,415	35,373	14,077	77	1,240	426,863
Year—									
1961–62	196,844	229,722	40,339	55,390	42,697	20,229	65	1,427	586,713
1962–63	198,873	237,645	35,483	58,919	41,236	19,386	68	1,849	593,459
1963–64	202,057	231,769	40,209	52,864	36,690	20,079	72	1,986	585,726
1964–65	195,236	230,318	47,984	55,392	35,839	18,123	88	1,856	584,836
1965–66	184,523	240,697	45,515	60,738	44,695	21,097	46	1,517	598,828

Consumption of mutton and lamb

In 1959–60 consumption of mutton and lamb, at 103 lb per head of population, showed a rise of approximately 15 lb per head over the previous year and exceeded that of beef and veal for the first time on record. Subsequently, consumption of mutton and lamb combined has declined each year; since 1962–63 it has been below the consumption of beef and veal. The consumption in 1965–66 was 83.3 lb per head.

PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (CARCASS WEIGHT): AUSTRALIA, 1936-37 TO 1965-66

Period	Net change in stocks ('000 tons)	Production ('000 tons)	Exports (a) ('000 tons)	For canning ('000 tons)	Apparent consumption in Australia: Total ('000 tons)	Apparent consumption in Australia: Per head per year (lb)
MUTTON						
Average for three years ended—						
1938–39	n.a.	201	17	..	184	60.0
1948–49	-1	177	15	8	154	45.1
1958–59	..	268	27	19	222	51.0
Year—						
1961–62	+1	368	83	23	262	55.3
1962–63	-2	363	107	8	249	51.7
1963–64	+1	361	112	9	238	48.4
1964–65	+4	361	116	10	232	46.3
1965–66	+4	390	141	9	236	46.3
LAMB						
Average for three years ended—						
1938–39	n.a.	118	72	..	46	15.0
1948–49	-2	130	45	..	86	25.2
1958–59	..	159	31	..	128	29.3
Year—						
1961–62	-1	219	18	..	203	42.8
1962–63	+1	231	27	..	203	42.1
1963–64	-1	225	21	..	205	41.7
1964–65	+1	224	26	..	197	39.3
1965–66	+3	209	18	..	189	37.0

(a) Includes carcass equivalent of boneless mutton exported.

Exports of frozen mutton and lamb

The quantities and values of exports of Australian frozen mutton and lamb in each year from 1961–62 to 1965–66 are shown in the following table.

EXPORTS OF FROZEN MUTTON AND LAMB(a): AUSTRALIA 1961-62 TO 1965-66

Year	Exports of frozen mutton: Quantity ('000 lb)	Exports of frozen mutton: Value ($'000 f.o.b.)	Exports of frozen lamb: Quantity ('000 lb)	Exports of frozen lamb: Value ($'000 f.o.b.)	Exports of frozen mutton and lamb: Quantity ('000 lb)	Exports of frozen mutton and lamb: Value ($'000 f.o.b.)
1961–62	109,113	16,312	37,399	5,248	146,512	21,560
1962–63	136,741	23,304	56,615	10,362	193,356	33,666
1963–64	149,918	24,752	41,606	7,718	191,524	32,470
1964–65	162,964	29,517	54,132	10,832	217,096	40,349
1965–66	176,424	37,242	35,574	8,176	211,998	45,417

(a) Actual weight shipped, not carcass equivalent.

In 1965–66 the principal buyers of Australian frozen mutton and lamb were the United States of America (62,973,000 lb, valued at $15,362,000); Japan (57,029,000 lb, valued at $10,471,000); Canada (28,180,000 lb, valued at $7,144,000); and the United Kingdom (27,338,000 lb, valued at $5,097,000).

Consumption of meat and meat products

The apparent consumption of meat (including cured and canned meat) and edible offal per head of population in Australia is shown in the table below for the years 1961–62 to 1965–66 in comparison with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL AVAILABLE FOR CONSUMPTION: AUSTRALIA, 1936-37 TO 1965-66

(lb per head per year)

Period	Beef and veal (a)	Mutton (a)	Lamb (a)	Pork (a)	Offal	Canned meat (b)	Bacon and ham (c)	Carcass equivalent of meat and meat products (d)
Average for three years ended—								
1938–39	140.3	60.0	15.0	8.5	8.4	2.1	10.2	250.9
1948–49	109.1	45.1	25.2	7.1	8.9	2.6	11.7	215.7
1958–59	123.8	51.0	29.3	10.1	11.4	4.1	7.1	242.4
Year—								
1961–62	93.4	55.3	42.8	13.6	11.6	3.8	7.0	232.3
1962–63	100.5	51.7	42.1	12.0	12.5	4.3	7.4	235.3
1963–64	104.8	48.4	41.7	11.5	12.9	4.3	7.3	235.7
1964–65	100.2	46.3	39.3	11.9	12.4	4.6	7.6	226.8
1965–66	93.2	46.3	37.0	13.5	11.4	4.6	7.6	217.8

(a) Carcass weight. (b) Canned weight. (c) Cured carcass weight. (d) Includes offal.

Other pastoral products

Tallow

Details of tallow consumption are collected from the principal factories using tallow. Recorded usage of inedible tallow in these factories (soap and candle, chemical, pharmaceutical and toilet preparations, and woolscouring works) for the five years 1961–62 to 1965–66 was as follows: 1961–62, 1,058,000 cwt; 1962–63, 1,090,000 cwt; 1963–64, 1,079,000 cwt; 1964–65, 1,158,000 cwt; 1965–66, 1,061,000 cwt. These figures are, however, deficient to the extent that no allowance has been made for small unrecorded amounts used in other types of establishments. Details of edible tallow consumed in factories are not available.

Particulars of exports of edible and inedible tallow of Australian origin are shown in the following table for the five years 1961–62 to 1965–66.

TALLOW: EXPORTS, AUSTRALIA, 1961-62 TO 1965-66

(cwt)

	1961–62	1962–63	1963–64	1964–65	1965–66
Edible	130,015	120,944	135,425	96,611	51,869
Inedible	1,853,161	2,229,230	1,976,000	1,846,543	1,243,584
Total	**1,983,176**	**2,350,174**	**2,111,425**	**1,943,154**	**1,295,453**

Overseas trade in hides and skins

The value of cattle and horse hides, sheep and other skins, and skin pieces sent overseas during 1965–66 amounted to $88,501,000, compared with a total of $79,534,000 in 1964–65 and $91,180,000 in 1963–64.

Of the total exports of sheepskins with wool during 1965–66, amounting to 197,901,000 lb valued at $63,042,000, 128,268,000 lb valued at $38,995,000 (62 per cent of total value) were shipped to France, 35,161,000 lb valued at $12,974,000 (21 per cent) to Italy, and 9,769,000 lb valued at $2,735,000 (4 per cent) to the United Kingdom. In the previous year France received 64 per cent (by value) of all sheepskins with wool exported, Italy 14 per cent and the United Kingdom 7 per cent. The exports of sheepskins with wool during each of the years 1961–62 to 1965–66 were as follows.

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA
1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number . .	'000	26,237	26,795	27,913	27,248	28,952
Value . . .	$'000	48,444	55,484	73,696	59,621	63,042

In 1965–66 a total of 1,125,000 sheepskins without wool were exported, valued at $701,000. Of these, sheepskins without wool to the value of $194,000 (28 per cent) were shipped to France; $133,000 (19 per cent) to the United States of America and $72,000 (10 per cent) to the Netherlands.

The export trade in cattle hides and calfskins during 1965–66 was distributed among the main importing countries as follows: Japan $12,229,000; the Federal Republic of Germany, $1,812,000; and Italy, $1,114,000. The total quantity exported was 116,677,000 lb, valued at $20,736,000.

The exports of furred skins in 1965–66 were valued at $2,196,000, of which kangaroo and wallaby skins constituted $1,266,000 and rabbit and hare skins $818,000. In 1964–65 they accounted for $1,611,000 and $1,321,000 respectively, out of a total of $3,022,000. The skins were shipped principally to the United States of America, the United Kingdom, Italy, and the Federal Republic of Germany; the values shipped to each in 1965–66 being: United States of America, $1,656,000; United Kingdom, $281,000; Italy, $78,000; and Federal Republic of Germany, $65,000.

The quantity of cattle hides, including calfskins, imported into Australia during the year 1965–66 amounted to 2,374,000 lb, valued at $337,000. The chief sources of supply were Pakistan, New Zealand and the Pacific Islands.

OTHER RURAL INDUSTRIES: DAIRYING, POULTRY AND BEE-FARMING

The dairying industry

The introduction of cattle into Australia and the early history of the dairying industry are treated in some detail in earlier issues of the Year Book. Australian dairy cattle have shown steady improvement in quality, as demonstrated by yield, over the years. This is attributable to improved breeding, associated with herd recording, and better feeding, resulting from the use of improved pastures. Better farming methods, arising from the development of modern farm machinery and the application of the results of research, have also played a part in the increased yields.

The Australian dairying industry is conducted under conditions ranging from tropical to temperate and Mediterranean type climates, and nowhere is it necessary to house cattle in the winter months. Most Australian dairy cattle are fed only on pasture and pasture products, and this accounts for average yields being somewhat lower than in those countries where stock are fed heavily on concentrated feed. In general, dairy farming is confined to the coastal and near coastal regions where rainfall and topography are favourable. These conditions are found in parts of the eastern, southern and south-western coasts. Inland districts include the lower north-east of Victoria, the south-western slopes of New South Wales, the fertile Darling Downs in Queensland, and the irrigated districts of the Riverina in New South Wales and northern Victoria.

The manufacturing and processing sections of the industry are highly organised and are well advanced technologically. Certain techniques and equipment developed in Australia are being adopted overseas. Dairy experts of the various State agricultural departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce, with the result that a high standard of cleanliness and technology prevails in the industry.

Marketing of dairy products

The export trade is regulated by the terms of the Commonwealth *Customs Act* 1901–1954 and the Commonwealth *Commerce* (*Trade Descriptions*) *Act* 1905–1966 and regulations thereunder. This legislation requires that the true trade descriptions, etc. be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

Details of the *Dairy Produce Export Control Act* 1924–1966 and of the Australian Dairy Produce Board constituted under it were given in earlier issues of the Year Book (*see* No. 48, pages 999–1000). The administrative expenses of the Australian Dairy Produce Board and other sundry expenditure were met from the proceeds of a levy imposed by the *Dairy Produce Export Charges Act* 1964 (*see* Year Book No. 51, page 1070). In 1965 this Act, together with the *Dairy Produce Levy Act*, 1958 was repealed by the *Butterfat Levy Act* 1965 (*see* page 977).

Equalisation schemes

Reference is made to the butter and cheese equalisation schemes in Year Book No. 48, pages 998–9. Particulars of the returns realised on local and overseas sales and of the average equalisation rate for the years ended June 1962 to 1967 are given on page 983 of this issue. Details are also given on page 982 of the wholesale prices of butter and cheese for home consumption as determined by the Commonwealth Dairy Produce Equalisation Committee Ltd.

An equalisation scheme for casein similar to that for butter and cheese has been operated since 1952 by the Commonwealth Dairy Produce Equalisation Committee Ltd. Average realisations per cwt under the scheme were $16.328 in 1961–62, $15.908 in 1962–63, $16.101 in 1963–64, $17.381 in 1964–65, and $24.50 in 1965–66. The interim equalisation value for 1966–67 has been fixed at $22.00 per cwt.

Commonwealth subsidies and stabilisation plans

Butter and cheese. Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Commonwealth Government has provided subsidies on milk supplied for the manufacture of butter and cheese. Subsidies were paid on a seasonal basis prior to 1 April 1946, but from that date have been on a flat rate basis. Subsidies are distributed by the Commonwealth Dairy Produce Equalisation Committee Ltd, through factories, to milk producers by payments on butter and cheese manufactured. Details of the three five-year stabilisation plans which operated up to 30 June 1962 will be found in Year Book No. 49, page 1084. Information regarding the plan which operated during the five years ended 30 June 1967 appears in Year Book No. 52, page 961.

A new five-year stabilisation plan came into operation on 1 July 1967. All the features of the previous plan have been retained. The fixed bounty of $27,000,000 payable in each year of the plan on butter, cheese and butterfat products containing 40 per cent or more butterfat is continued.

The underwriting of final minimum equalised returns on butter and cheese, each year, is also continued. Returns to producers which have been underwritten at 33c per lb on commercial butter, each year, since the inception of the underwriting arrangement in 1958 have been raised to 34c per lb for the 1967–68 season.

Amounts realised on exports of butter and cheese in excess of the f.o.b. equivalent of the guaranteed return have been credited to the Dairying Industry Stabilisation Fund, which was established in July 1948 for the purpose of stabilising returns from exports. During 1951–52 the Stabilisation Fund met the deficiency in respect of all exports which did not earn sufficient to meet the basic return to the factory. From 1 July 1952 to 30 June 1957 it was available to the industry to be used, in whatever manner it considered desirable, to make good any deficiency in respect of all exports other than the 20 per cent provided for under the Commonwealth Government's Five-year Stabilisation Plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Primary Industry. The amount standing to the credit of the Dairying Industry Stabilisation Fund at 30 June 1966 totalled approximately $4,353,000. The major portion of the fund represents capital and other investments in milk recombining plants now established by the Board in Bangkok, Singapore and Manila.

Processed milk products. Subsidy on milk supplied for the manufacture of processed milk products was also payable from 1942 until 30 June 1948, and again from 1 July 1949 to 30 June 1952. The Commonwealth Government provided, under the *Processed Milk Products Bounty Act* 1962, for the payment of a maximum amount of $700,000 as a bounty on exports of processed milk products in 1962–63. The bounty is to continue under present legislation until 30 June 1972, the maximum amounts made available being $1,000,000 for 1963–64 and $800,000 for each subsequent year.

Whole milk. In addition to the subsidies referred to above, the Commonwealth Government subsidised the production of whole milk consumed directly from 1943–44 to 1948–49. Details of the amounts distributed during each year will be found in Year Book No. 38, page 1031.

Extension, research and promotion of the dairying industry

Dairy Industry Extension Grant. An annual grant of $500,000, to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Commonwealth Government for the five years from 1 July 1948. This assistance was continued for further periods of five years from 1 July 1953 and from 1 July 1958 at the same rate. For the five years from 1 July 1963 the amount of the annual grant has been increased to $700,000.

Dairy industry research and sales promotion. At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems. The legislation provided for a statutory levy on the manufacture of butter and cheese (the Dairy Produce Levy) which was initially set at rates of 0.104c per lb for butter and 0.052c per lb for cheese, the proceeds being divided equally between research and sales promotion. The rates of levy operative from November 1959 were 0.156c per lb for butter and 0.078c per lb for cheese, of which two-thirds was allocated to sales promotion and one-third to research.

In August 1964 the legislation was amended to include butter powder, at the same rates as for butter, and butteroil and ghee at 0.065c per lb for research and 0.130c per lb for sales promotion. In 1965 the Dairy Produce Levy Act was repealed and replaced by the *Butterfat Levy Act* 1965 which provides for the amalgamation of the three levies into one levy on butterfat used in the manufacture of butter, cheese and related products. The maximum rate of levy in the Act is 60 cents per cwt of butterfat and the prescribed operative rate is 52 cents per cwt (22 cents for promotion, 20 cents for administration and overseas market development, and 10 cents for research).

The Commonwealth Government agreed to contribute one half of the costs incurred on approved projects included in the programme of research, with a maximum contribution of $1 for $1 against funds raised by way of levy and allocated to research. The sales promotion programme is financed solely by the levy. The following table lists the amounts of levies collected for research and sales promotion during the five years 1961–62 to 1965–66.

BUTTER FAT LEVY: AMOUNTS COLLECTED FOR RESEARCH AND SALES PROMOTION, 1961-62 TO 1965-66

($)

	1961–62 (*a*)	1962–63 (*a*)	1963–64 (*a*)	1964–65 (*a*)	1965–66
Research(*b*)	260,000	263,500	264,200	262,800	310,200
Sales promotion	520,000	527,000	528,400	543,000	823,600
Total collected(*b*)	**780,000**	**790,500**	**792,600**	**805,800**	**1,133,800**

(*a*) Collected under Dairy Produce Levy Act. (*b*) Excludes amounts contributed by the Commonwealth Government

The scheme is administered by the Australian Dairy Produce Board, which, in respect of research, is advised by a statutory committee, the Dairy Produce Research Committee.

Dairy cattle

For the reasons indicated earlier in this chapter (*see* page 954), farmers are no longer asked to classify their herds according to breed. Commencing with the 1964 census they have been asked instead to classify their cattle according to the two main purposes of (*a*) milk production and (*b*) meat production and to report separately the number of cows and heifers kept for their own domestic milk supply. Consequently the statistics shown in the following table are not comparable with those for earlier years.

DAIRY BREED BULLS, AND COWS AND HEIFERS USED OR INTENDED FOR PRODUCTION OF MILK OR CREAM: STATES AND TERRITORIES 31 MARCH 1964 TO 1966

31 March	Bulls, dairy breed (*a*)	Cows and heifers used or intended for production of milk or cream for sale					House cows and heifers (*b*)
		Cows		Heifers			
				1 year and over		Under one year	
		In milk	Dry	Springing(*c*)	Other		
1964 . . .	99,270	3,078,075		821,286		717,895	218,098
1965 . . .	95,012	3,011,832		843,212		690,267	202,138
1966—							
New South Wales	19,007	523,356	152,126	194,998		134,147	92,773
Victoria . .	39,162	886,333	305,374	320,122		325,026	30,351
Queensland .	16,887	468,871	157,792	167,686		103,754	39,291
South Australia .	6,175	92,673	62,268	21,182	24,594	38,425	6,274
Western Australia	4,438	42,777	66,514	24,290	27,778	32,051	10,182
Tasmania . .	4,296	148,452		41,951		47,317	6,265
Northern Territory	12	349		96		82	25
Australian Capital Territory .	32	1,105	382	190		231	428
Australia .	**90,009**	**2,908,372**		**822,887**		**681,033**	**185,589**

(*a*) Used or intended for service; excludes bull calves (under 1 year). (*b*) Kept primarily for rural holdings' own milk supply. (*c*) Within three months of calving.

For particulars relating to dairy cattle numbers up to 1963 *see* page 1078 of Year Book No. 50.

A map showing the distribution of dairy cattle in Australia at 31 March 1963 appears facing page 1082 of Year Book No. 50.

Milking machines

MILKING MACHINES ON RURAL HOLDINGS: NUMBER OF UNITS(*a*) STATES AND TERRITORIES, 1962 TO 1966

31 March	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1962 . .	43,369	95,661	47,486	18,831	10,562	12,220	n.a.	99	(*b*)228,228
1963 . .	43,089	97,372	46,674	18,836	10,514	12,701		84	(*b*)229,270
1964 . .	42,970	98,321	45,072	19,057	10,157	13,382		83	(*b*)229,042
1965 . .	42,209	101,994	44,074	19,135	10,055	13,806	23	93	231,389
1966 . .	41,796	105,003	42,199	18,833	9,780	15,894	26	94	233,625

(*a*) The number of units indicates the number of cows that can be milked simultaneously, i.e. the cow capacity of installed milking machines. (*b*) Excludes the Northern Territory.

Production of milk

The quantity of milk produced by a dairy cow can be as high as 1,000 gallons a year, and varies greatly with breed, locality and season. For all dairy cows and for all seasons for Australia prior to 1916 production averaged considerably less than 300 gallons per annum. Largely owing to an improvement in the quality of the cattle and the increased application of scientific methods the 300-gallon average has been exceeded in each year since 1924. In the last five years an average of 462 gallons per cow per annum has been obtained. In 1965–66 the average yield was 483 gallons. The annual average yields per cow shown in the following table are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of cows in milk and dry and house cows at 31 March of that year and of the preceding year. They are, in effect, based on the approximate number of cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year, but it may be accepted as sufficiently reliable to show the general trend.

AVERAGE MILK PRODUCTION PER COW: STATES AND TERRITORIES 1936-37 TO 1965-66

(Gallons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (a)
Average for three years ended—									
1938–39	315	439	298	442	353	349	n.a.	349	354
1948–49	310	506	267	565	370	419		328	371
1958–59	322	522	267	513	406	537		420	393
Year—									
1961–62	387	571	306	614	462	562	n.a.	471	452
1962–63	364	586	312	586	442	570		479	452
1963–64(b)	368	587	307	587	448	577	230	557	456
1964–65(b)	347	613	306	614	490	589	248	547	467
1965–66(b)	378	616	316	602	508	578	234	524	483

(a) Excludes the Northern Territory before 1963–64. (b) May not be comparable with earlier years; *see* pages 977–8.

In the following table particulars of the production of whole milk in the various States and Territories are shown for the years 1961–62 to 1965–66 compared with the averages for the three years ended 1938–39, 1948–49 and 1958–59. Victoria is the principal milk-producing State, and in 1965–66 the output from that State, 751 million gallons, represented 49 per cent of total production. Output from New South Wales in 1965–66 was 301 million gallons (20 per cent of the total) and that of Queensland 221 million gallons (15 per cent). Production in the remaining States and Territories accounted for 16 per cent.

TOTAL PRODUCTION OF WHOLE MILK: STATES AND TERRITORIES 1936–37 TO 1965–66

('000 gallons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
Average for three years ended—									
1938–39	319,003	403,152	275,898	68,429	42,358	32,803	n.a.	363	1,142,006
1948–49	280,460	445,517	252,469	92,587	49,004	32,638		573	1,153,248
1958–59	307,514	578,529	240,446	84,185	54,218	65,032		929	1,330,853
Year—									
1961–62	344,724	630,948	239,823	95,504	58,240	73,206	n.a.	1,117	1,443,562
1962–63	324,113	667,562	245,067	95,378	56,029	78,518		1,090	1,467,757
1963–64	322,547	694,990	239,827	97,523	57,162	83,124	76	1,146	1,496,395
1964–65	291,931	745,896	230,289	102,330	61,883	87,343	98	1,094	1,520,864
1965–66	300,740	750,915	221,086	98,398	61,865	87,890	92	1,026	1,522,013

(a) Excludes the Northern Territory before 1963–64.

UTILISATION OF WHOLE MILK: STATES AND TERRITORIES, 1965–66

('000 gallons)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Milk used for—									
Butter	142,355	533,853	139,952	30,921	37,097	65,092	..	..	949,270
Cheese	8,897	55,299	17,472	35,659	2,656	6,592	..	..	126,575
Preserved milk products	14,835	62,359	63,662	..	883	16,206	..	..	93,189
Other purposes	134,654	99,404		31,818	21,229		92	1,026	352,979
Total	**300,740**	**750,915**	**221,086**	**98,398**	**61,865**	**87,890**	**92**	**1,026**	**1,522,013**

In 1965–66, 62.4 per cent of the total milk supply was used for butter, 8.3 per cent for cheese, 6.1 per cent for preserved milk products, and 23.2 per cent for other purposes.

PRODUCTION AND UTILISATION OF WHOLE MILK: AUSTRALIA
1936–37 TO 1965–66
('000 gallons)

Period	Total production	Quantity used for—			
		Butter (factory and farm)	Cheese (factory and farm)	Preserved milk products	Other purposes (*a*)
Average for three years ended—					
1938–39	1,142,006	891,742	54,934	33,226	162,104
1948–49	1,153,248	738,377	91,642	78,739	244,490
1958–59	1,330,853	865,347	90,561	79,687	295,258
Year—					
1961–62	1,443,562	919,301	122,340	78,028	323,893
1962–63	1,467,757	932,041	130,503	83,167	322,046
1963–64	1,496,395	940,787	130,431	92,235	332,942
1964–65(*b*)	1,520,864	938,796	135,733	96,973	349,362
1965–66(*b*)	1,522,013	949,270	126,575	93,189	352,979

(*a*) Principally fluid milk for domestic purposes. (*b*) Milk used for farm production of butter and cheese is included in 'Other purposes'.

Production of butter, cheese and preserved milk products

The establishment of large central butter factories, either on a co-operative or independent basis, has resulted in a considerable reduction in the cost of manufacture. The product is also of a more uniform quality, and whereas formerly the average quantity of milk used per pound of hand-made butter was about three gallons, factory butter requires only about two gallons. In addition, subsidy payments by the Commonwealth Government are made only on factory-produced butter. As a result the production of farm-made butter has declined to negligible proportions. A similar position exists in the cheese-making industry.

In 1965–66 factories in Australia engaged in the processing of milk into butter or cheese or the various preserved milk products numbered 337 and were distributed among the States as follows: New South Wales, 69; Victoria, 119; Queensland, 63; South Australia, 44; Western Australia, 19; and Tasmania, 23. More details regarding numbers of factories, output, etc., are given in the chapter Manufacturing Industry.

Factory production of butter in 1965–66 at 461,085,000 lb was 6,207,000 lb (1.4 per cent) more than the amount produced in 1964–65, and 6,876,000 (1.5 per cent) less than the record post-war production of 1955–56.

BUTTER PRODUCTION IN FACTORIES: STATES
1936-37 TO 1965-66
('000 lb)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Average for three years ended—							
1938–39	111,250	137,908	117,907	17,868	12,999	8,812	406,744
1948–49	70,323	131,522	94,624	20,223	14,856	10,044	341,591
1958–59	75,784	196,356	85,413	16,820	15,259	23,784	413,417
Year—							
1961–62	87,346	214,254	79,841	16,629	16,762	27,022	441,853
1962–63	80,568	227,207	81,661	16,395	15,596	29,338	450,765
1963–64	80,880	231,499	79,220	16,587	15,491	30,616	454,292
1964–65	67,081	248,506	73,546	17,215	17,387	31,143	454,878
1965–66	73,901	251,332	70,189	16,160	18,133	31,370	461,085

Factory production of cheese was 131,300,000 lb in 1965–66 which was 6,708,000 lb (4.9 per cent) less than the record of 138,008,000 lb in 1964–65.

CHEESE PRODUCTION IN FACTORIES: STATES
1936-37 TO 1965-66
('000 lb)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Average for three years ended—							
1938–39	7,347	16,141	11,357	15,380	957	3,190	54,371
1948–49	5,342	38,927	19,972	26,844	2,171	1,436	94,692
1958–59	9,784	39,440	15,331	25,128	2,524	750	92,958
Year—							
1961–62	13,806	53,579	20,101	32,835	3,056	1,355	124,732
1962–63	12,366	57,274	22,851	33,967	3,223	1,440	131,120
1963–64	12,142	56.397	21,263	34,236	3.373	2,994	130,405
1964–65	9,785	60.975	19,095	38,836	4,051	5,265	138,008
1965–66	9,786	58,158	17,773	36,281	2,713	6,590	131,300

Preserved milk products are manufactured mainly in Victoria, which produced 67 per cent of the total (in terms of whole milk equivalent) in 1965–66. New South Wales accounted for 16 per cent and the remaining States for 17 per cent.

PRODUCTION OF PRESERVED MILK PRODUCTS: AUSTRALIA
1961-62 TO 1965-66
('000 lb)

Product	1961–62	1962–63	1963–64	1964–65	1965–66
Condensed, concentrated and evaporated milk—					
Full cream—					
Sweetened(*a*)	63,299	75,533	95,744	102,479	73,985
Unsweetened(*b*)	65,694	64,409	71,964	89,390	88,482
Skim	13,168	19,203	25,712	21,936	21,350
Ice cream mixes—					
Liquid	8.228	8,612	11,896	10,810	15,198
Powder	1,360	1,341	973	773	551
Infants' and invalids' food(*c*)	38,137	38,465	44,105	45,179	45,280
Casein	30,356	36,236	37,360	39,768	50,712
Powdered milk—					
Full cream—					
Spray	42,211	37,829	40,069	41,561	42,888
Roller	3,115	1,874	2,109	2,108	2,172
Skim—					
Without added ingredients					
Spray	69,525	76,689	70,189	82,624	84,018
Roller	10,177	10,845	12,783	14,704	14,466
With added ingredients—					
Baker's powder	4,738	4,808	4,854	5,264	5,577
Other		1,834	4,303	5,231	8,281
Buttermilk or mixed skim and buttermilk—					
Spray	1,353	2,543	4,650	4,702	8,345
Roller	16,710	18,258	17,060	16,183	17,921
Total powdered milk	*147,829*	*154,680*	*156,017*	*172,378*	*183,667*

(*a*) Includes 'coffee and milk'. (*b*) Irrespective of butterfat content. (*c*) Includes malted milk and milk sugar (lactose).

Wholesale prices of butter and cheese in Australia

Details of prices operating in each of the States since 1 July 1956 are shown in the following table. The prices included are those determined by the Commonwealth Dairy Produce Equalisation Committee Ltd for choicest grade bulk butter and cheese.

WHOLESALE PRICES OF BUTTER AND CHEESE: AUSTRALIA
1956 TO 1966

($ per cwt)

Date from which prices became effective	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.
Butter—						
1 July 1956 . .	46.67	46.67	46.55	46.43	46.67	46.67
1 July 1958 . .	48.53	48.53	48.42	48.42	48.53	48.53
1 July 1960 . .	50.17	50.17	50.05	50.17	50.17	50.17
19 June 1964 .	51.80	51.80	51.80	51.80	51.80	51.80
14 February 1966 .	52.08	52.08	52.08	52.08	52.08	52.08
Cheese—						
1 July 1956 . .	28.23	28.23	28.23	28.12	28.23	28.23
1 July 1958 . .	29.17	29.17	29.17	29.17	29.17	29.17
1 July 1960 . .	29.63	29.63	29.63	29.63	29.63	29.63
19 June 1964 .	30.57	30.57	30.57	30.57	30.57	30.57
14 February 1966 .	30.80	30.80	30.80	30.80	30.80	30.80

Local consumption of butter and cheese

Following the cessation of butter rationing after the 1939–45 War, consumption per head rose to 31.2 lb in 1951–52. However, in later years it gradually declined, and in 1965–66 it reached its lowest level since the war. At 21.8 lb per head it was 3.5 per cent below the level of 1964–65. Consumption of cheese per head has been rising steadily in recent years, reaching 8.0 lb in 1965–66.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE
AUSTRALIA, 1936-37 TO 1965-66

Period	Change in stocks (*a*) ('000 tons)	Production (*b*) ('000 tons)	Exports (*c*) ('000 tons)	Apparent consumption in Australia: Total ('000 tons)	Apparent consumption in Australia: Per head per year (lb)
			BUTTER		
Average for three years ended—					
1938–39 . .	n.a.	190.8	89.4	101.4	32.9
1948–49 . .	−3.6	157.1	76.0	84.7	24.8
1958–59 . .	−0.6	187.4	69.6	118.4	27.2
Year—					
1961–62 . .	+4.8	198.6	80.1	113.8	24.0
1962–63 . .	+7.1	202.4	80.6	114.7	23.8
1963–64 . .	−2.3	203.8	91.0	115.1	23.4
1964–65 . .	−6.9	203.1	96.8	113.2	22.6
1965–66 p . .	+9.2	205.8	85.1	111.6	21.8
			CHEESE		
Average for three years ended—					
1938–39 . .	n.a.	24.9	11.5	13.4	4.4
1948–49 . .	−0.8	42.3	24.3	18.8	5.5
1958–59 . .	+2.8	41.6	13.8	25.0	5.7
Year—					
1961–62 . .	+2.2	55.7	22.4	31.1	6.6
1962–63 . .	+0.2	58.7	26.0	32.4	6.7
1963–64 . .	−5.3	58.2	27.9	35.6	7.3
1964–65 . .	−3.5	61.6	27.3	37.8	7.5
1965–66 p . .	−7.6	58.6	25.4	40.7	8.0

(*a*) Balance figure for 1946–47 and subsequent years; includes allowance for imports. (*b*) Factory production only for 1964–65 and 1965–66. (*c*) Includes ships' stores; figures for butter include ghee and butter concentrate expressed as butter.

Average returns from butter and cheese sold

The table below shows rates realised on local, interstate and overseas sales and the average equalisation and subsidy rates in operation for the years ended June 1962 to 1967.

BUTTER AND CHEESE: RATES REALISED ON SALES, AVERAGE EQUALISATION RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRYING INDUSTRY ACTS, 1961–62 TO 1966–67

(*Source:* Commonwealth Dairy Produce Equalisation Committee Ltd)

($ per cwt)

Year	Rates realised on sales				Average equalisation rate	Rate of subsidy	Rate of overall return to manufacturer
	Intrastate	Interstate	Manufacturing	Overseas			
Butter—							
1961–62 .	48.39	46.67	31.52	29.10	39.84	6.26	46.10
1962–63 .	48.49	46.49	31.62	32.67	41.15	6.15	47.30
1963–64 .	48.65	47.03	31.40	33.82	41.73	6.10	47.83
1964–65 .	50.08	48.18	31.63	34.08	42.25	6.09	48.33
1965–66 .	..	..	..	..	(*a*) 40.10	6.01	(*a*) 46.11
1966–67 .	..	..	..	..	(*a*) 36.80	5.67	(*a*) 42.47
Cheese—							
1961–62 .	(*b*) 28.39			18.95	24.12	2.44	26.56
1962–63 .	(*b*) 28.39			20.28	24.22	2.33	26.56
1963–64 .	(*b*) 28.54			21.13	25.51	2.36	27.87
1964–65 .	(*b*) 29.32			22.11	26.00	2.23	28.23
1965–66 .	..			..	(*a*) 25.85	2.36	(*a*) 28.21
1966–67 .	..			..	(*a*) 24.78	2.02	(*a*) 26.80

(*a*) Interim rates. (*b*) As cheddar.

The distribution between factory and farm of the overall return to manufacturers for butter is shown in the following table.

COMMERCIAL BUTTER: AVERAGE OVERALL RETURNS AUSTRALIA, 1961-62 TO 1966-67

(*Source:* Commonwealth Dairy Produce Equalisation Committee Ltd)

(Cents per lb)

Year	Average overall returns on commercial butter		
	Rate of overall return to manufacturer	Estimated manufacturing cost	Return to dairy farmer
1961–62 . .	41.160	4.449	36.711
1962–63 . .	42.234	4.449	37.785
1963–64 . .	42.705	4.449	38.256
1964–65 . .	43.154	4.449	38.705
1965–66 . .	(*a*) 41.171	4.449	36.722
1966–67 . .	(*a*) 37.916	4.583	(*a*) 33.333

(*a*) Interim rates.

Overseas trade in dairy products

The production of butter and cheese in Australia is considerably in excess of local requirements, and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon seasonal conditions.

Exports of butter in 1965–66 amounted to 167.6 million lb, compared with 202.2 million lb in 1964–65. Exports of cheese in these years were 55.8 million lb and 60.9 million lb respectively. As in previous years, the principal importing country for Australian butter and cheese was the United Kingdom. In 1965–66, 82 per cent of butter and 36 per cent of cheese exported was consigned to the United Kingdom.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to supervision, inspection and examination by officers appointed for that purpose. These commodities are graded according to quality, which has been fixed by regulation as follows: flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, are to be found in *Rural Industries*, 1964–65, Bulletin No. 3.

BULK BUTTER AND CHEESE GRADED FOR EXPORT AUSTRALIA, 1963-64 TO 1965-66

(Per cent)

Grade	Butter			Cheese		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Choicest	67.5	73.3	73.6	5.1	6.1	6.9
First quality	25.1	21.0	20.7	87.6	87.0	86.7
Second and third quality(*a*)	7.4	5.7	5.7	7.3	6.9	6.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Includes rejected.

Exports of butter, cheese and other milk products of Australian origin are shown in the following table.

EXPORTS OF DAIRY PRODUCTS: AUSTRALIA, 1963-64 TO 1965-66

Product	Quantity ('000 lb)			Value ($'000 f.o.b.)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Butter	196,563	202,240	167,625	54,714	62,165	49,989
Cheese	62,333	60,929	55,777	13,518	14,197	13,470
Other milk products—						
Preserved, condensed, concentrated, etc.—						
Sweetened	69,554	78,070	44,661	9,174	10,362	5,650
Unsweetened	8,337	11,678	14,228	941	1,328	1,619
Ice cream mixes	214	186	211	56	47	51
Infants' and invalids' food (essentially of milk)(*a*)	17,924	16,523	13,301	5,142	4,752	3,811
Casein	37,582	36,624	43,342	5,388	6,145	10,183
Dried or powdered—						
Full cream	15,260	18,737	20,181	4,281	5,248	5,161
Skim	40,505	56,098	42,018	2,985	5,885	5,333

(*a*) Includes malted milk.

Pigs

At 31 March 1966, 1,747,000 pigs were recorded, representing an increase of 87,000 (5.2 per cent) on numbers a year earlier. The number of pigs in each State and Territory at 31 March for each of the years 1962 to 1966 compared with the averages for the three-year periods ended 31 March 1939, 1949 and 1959, are given in the following table.

PIGS: NUMBERS IN STATES AND TERRITORIES, 1937 TO 1966

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939 . .	374,963	285,465	299,707	74,329	74,657	42,802	404	481	1,152,808
1949 . .	366.267	261,922	375,191	101,934	91,862	43,184	424	554	1,241,338
1959 . .	377,510	263,363	405,702	99,632	135,404	61,389	2,543	160	1,345,703
At 31 March—									
1962 . .	471,579	325,120	432,609	170,133	174,182	75,754	2,762	184	1,652,323
1963 . .	391,999	297,791	402,498	144,976	130,791	70,002	1,842	92	1,439.991
1964 . .	391,300	322,051	388,144	153,415	128,140	82,534	1,806	121	1,467,511
1965 . .	448,661	378.055	406.028	195,873	137,192	92,021	2,182	(a)	b1,660,012
1966 . .	479,768	383,509	417,235	223,586	144,022	96,156	2,275	(a)	b1,746,551

(a) Not available for publication. (b) Incomplete, excludes Australian Capital Territory.

A long-term comparison of pig numbers is given in the division Pastoral Production of this chapter (*see* page 950). A map showing the distribution of pigs in Australia at 31 March 1963 faces page 1083 of Year Book No. 50 and a graph showing the number of pigs in Australia from 1870 onwards appears on plate 46 of this Year Book (*see* page 949).

The number of pigs slaughtered during each of the years 1961–62 to 1965–66, compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59, is shown in the following table.

PIGS SLAUGHTERED: STATES AND TERRITORIES, 1936-37 TO 1965-66
('000)

Period	Slaughterings passed for human consumption									Total slaughterings (including boiled down)
	N.S.W.	Vic.	Qld	S.A.	W A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938–39 . .	562	503	530	155	109	65	1		1,925	1,961
1948–49 . .	440	371	448	154	138	54	1		1,606	1,615
1958–59 . .	594	439	474	159	191	94	5		1,956	1,968
Year—										
1961–62 . .	755	587	597	232	264	120	2	7	2.564	2,573
1962–63 . .	688	528	604	234	237	115	2	7	2,416	2,424
1963–64 . .	636	531	606	214	185	124	2	7	2.305	2,313
1964–65 . .	674	599	623	241	182	135	3	5	2,461	2,468
1965–66 . .	774	703	640	298	195	146	2	9	2,769	2,777

Production of pigmeat, bacon and ham

In the following table details of the production of pigmeat in each State are shown for the years 1961–62 to 1965–66, together with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

PRODUCTION OF PIGMEAT (CARCASS WEIGHT) STATES AND TERRITORIES, 1936–37 TO 1965–66
(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39 . .	25,558	24,569	23,522	7,538	4,322	2,893	5	43	(a)88,450
1948–49 . .	27,182	22,308	22,856	8,993	8,500	2,916	24	36	92,815
1958–59 . .	28,272	23,097	23,180	8,778	9,624	4,156	84	209	97,400
Year—									
1961–62 . .	32,677	27,406	29,802	11,558	13,180	5,428	86	326	120,463
1962–63 . .	30.283	25,086	29.619	11,810	11,731	5,461	69	328	114,387
1963–64 . .	28,717	25,306	29,919	11.163	9,852	5,927	73	326	111,283
1964–65 . .	31,509	28,048	31,259	12.656	9,861	6,585	90	218	120,226
1965–66 . .	35,343	33,195	31,394	15,223	10,444	7,023	93	428	133,143

(a) Excludes trimmings from baconer carcasses.

Production of bacon and ham amounted to 46,006 tons in 1965–66. This amount was 6.3 per cent above the amount of 43,264 tons produced in 1964–65. The record output of 56,246 tons was attained in 1944–45.

PRODUCTION OF BACON AND HAM (CURED CARCASS WEIGHT)(*a*) STATES, 1936–37 TO 1965–66

(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
Average for three years ended—							
1938–39	10,396	7,556	8,759	2,940	1,838	1,022	32,511
1948–49	14,436	10,787	9,846	4,580	4,209	1,196	45,054
1958–59	11,132	8,302	10,294	3,275	2,987	1,078	37,068
Year—							
1961–62	11,145	9,102	12,221	2,757	3,512	1,131	39,868
1962–63	12,827	9,004	11,449	3,355	3,844	1,182	41,661
1963–64	13,503	8,629	10,843	3,605	3,792	1,166	41,538
1964–65	13,923	9,366	11,086	3,822	3,896	1,171	43,264
1965–66	14,989	9,357	12,342	4,106	4,150	1,062	46,006

(*a*) Pressed and canned bacon and ham have been converted to cured carcass weight for periods subsequent to 1948–49.

Consumption of pigmeat, bacon and ham

Apparent consumption of pigmeat per head in 1965–66 was 13.5 lb, compared with 11.9 lb per head in 1964–65. The 1961–62 level of 13.6 lb was the highest since the war. In recent years annual consumption of pigmeat per head has not fallen below 11 lb.

PRODUCTION AND DISPOSAL OF PIGMEAT (CARCASS WEIGHT) AUSTRALIA, 1936-37 TO 1965-66

Period	Change in stocks (*a*)	Production	Exports	Curing and canning	Apparent consumption (as pork or smallgoods) in Australia	
					Total	Per head per year
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
Average for three years ended—						
1938–39	n.a.	88.5	13.7	48.6	26.2	8.5
1948–49	−1.2	92.8	6.3	63.4	24.3	7.1
1958–59	..	97.4	0.8	53.0	43.6	10.1
Year—						
1961–62	−0.7	120.5	0.9	55.8	64.4	13.6
1962–63	−1.8	114.4	0.2	58.0	57.9	12.0
1963–64	−3.1	111.3	0.2	57.5	56.7	11.5
1964–65	−0.4	120.2	0.4	60.6	59.7	11.9
1965–66	..	133.1	0.5	63.7	69.0	13.5

(*a*) Includes allowance for imports.

PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED CARCASS WEIGHT): AUSTRALIA, 1936-37 TO 1965-66

Period	Change in stocks	Production	Exports	Canning	Apparent consumption in Australia	
					Total	Per head per year
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
Average for three years ended—						
1938–39	n.a.	32.5	1.0	..	31.5	10.2
1948–49	..	45.1	3.1	2.1	39.9	11.7
1958–59	+0.1	37.1	0.5	6.0	30.5	7.1
Year—						
1961–62	..	39.9	0.1	6.8	32.9	7.0
1962–63	−0.1	41.7	0.1	5.7	35.9	7.4
1963–64	−0.1	41.5	0.1	5.5	36.1	7.3
1964–65	..	43.3	0.1	5.2	37.9	7.6
1965–66	+0.2	46.0	0.2	6.6	39.0	7.6

Exports of pigs and pig products

Total quantities and values of exports of pigs and pig products of Australian origin for the years 1963–64 to 1965–66 are given in the following table.

EXPORTS OF PIGS AND PIG PRODUCTS: AUSTRALIA, 1963-64 TO 1965-66

		Quantity			Value ($'000 f.o.b.)		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Bacon and ham (including canned)	'000 lb	186	379	487	120	259	334
Lard	'000 lb	95	231	157	22	32	27
Frozen pork	'000 lb	370	818	1,064	133	324	436
Pigs, live	number	547	n.a.	n.a.	80	n.a.	n.a.

The poultry industry

Originally the poultry industry was conducted in conjunction with other branches of rural activity, mainly dairying, but it is now a specialised and distinct industry. It is from this source that the bulk of the commercial production is obtained. Practically all farm households keep poultry for the purpose of supplying their own domestic requirements, and some supplies from this source are also marketed. In addition, some private homes in both rural and suburban areas keep small numbers of fowls in back-yard runs to help satisfy domestic needs. Because of the incompleteness of data available on poultry throughout Australia, details of poultry numbers are not published.

Stabilisation scheme for the egg industry

A Commonwealth industry stabilisation scheme for the egg industry has been in operation since 1 July 1965. The principal features of the scheme are embodied in three Commonwealth Acts—*Poultry Industry Levy Act* 1965–1966, *Poultry Industry Levy Collection Act* 1965–1966, and *Poultry Industry Assistance Act* 1965–1966.

The scheme provides for the imposition of a levy on hens over six months of age kept for commercial purposes. The money obtained from the levy is used to meet trading losses on surplus eggs. Previously, returns to producers were equalised by State Egg Boards, who imposed an equalisation deduction to cover deficits which resulted from sales to overseas markets.

In determining the rate of the hen levy, the Minister for Primary Industry is required to take into consideration any recommendations by the Council of Egg Marketing Authorities of Australia (which consists of all members of the State Egg Marketing Boards) and is precluded from prescribing a rate in excess of such recommendations. The initial rate of levy was set at about 2.71c per hen per fortnight (the equivalent of $0.70 per bird per year). This rate was increased to 2.80c on 23 February 1966. Following upon recommendations by the Council of Egg Marketing Authorities of Australia, the Minister for Primary Industry approved an increase in the levy to 3.50c per fortnight operative from 13 July 1966. As from 19 April 1967 the levy was increased to 5.00c per fortnight for the remainder of the financial year 1966–67. This had the effect of raising the total levy for the year to the maximum permitted under the legislation of $1.00 per hen per year.

Exemptions from payment are granted on the first 20 hens in each flock and also on a substantial proportion of broiler breeder hens. The eggs produced by broiler breeder hens which are not used for hatching determine the proportion of those hens on which the levy becomes payable in accordance with a formula incorporated in the legislation.

By agreement with the Commonwealth, the State Egg Boards collect the levy from individual producers and remit the total amount to the Commonwealth. The Commonwealth Government pays into the Poultry Industry Trust Fund amounts equal to the receipts obtained from the hen levy. These amounts totalled $6,427,000 in 1965–66. Payments from the Fund are made to the State Governments for financial assistance to the poultry industry, and are authorised by the Minister for Primary Industry, after consideration has been given to the recommendations by the Council of Egg Marketing Authorities of Australia. Payments from the Trust Fund totalled $5,540,000 in 1965–66.

Research

The *Poultry Industry Assistance Act* 1965–1966 permits expenditure from the Poultry Industry Trust Fund to be made for research. The Commonwealth Government has agreed to match expenditure from this Fund on a $1 for $1 basis with a limit to its contribution of $100,000. There is no restriction on the amount which may be expended from the Fund for research purposes.

Research projects are recommended by the Council of Egg Marketing Authorities of Australia for approval by the Minister for Primary Industry. Expenditure may be approved for scientific technical or economic research, the publication of reports thereon, the training of persons for research, and the dissemination of information and advice on scientific, technical or economic matters.

Marketing of eggs

Details of the annual contracts entered into between the United Kingdom and Australian Governments up to 1952–53 and of the results of trading under free market conditions in the four years following appear in previous issues of the Year Book.

Australian exports of shell eggs in 1965–66 amounted to 3,935,000 dozen compared with 3,327,000 dozen in 1964–65. The main outlets for Australian eggs in 1965–66 were the United Kingdom (1,040,000 dozen), Kuwait (925,000 dozen), Federation of South Arabia (446,000 dozen), Federal Republic of Germany (239,000 dozen), and Qatar (201,000 dozen).

The United Kingdom provides the major export market for egg pulp. Australian exports of pulp to that country were approximately 15,215,000 lb in 1964–65 and 7,400,000 lb in 1965–66. In 1965–66 the United Kingdom absorbed the bulk of the exports of dried eggs (233,000 lb) also.

Details of the *Egg Export Control Act* 1947 were given in earlier issues of the Year Book (*see* No. 47, page 997).

Recorded production of eggs and egg products

Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Australian Egg Board and the Egg Marketing Board of New South Wales. Details of production as recorded by these authorities are shown in the following table.

SHELL EGGS: PRODUCTION(*a*) RECORDED BY EGG BOARDS STATES, 1961-62 TO 1965-66

('000 dozen)

State	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales(*b*)	61,657	54,609	56,713	62,918	65,240
Victoria	29,939	26,794	24,992	28,016	29,925
Queensland	10,176	11,290	12,459	14,182	17,062
South Australia	11,388	9,816	8,731	9,354	11,218
Western Australia	7,558	7,796	8,331	9,620	9,295
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total(*c*)	**120,718**	**110,305**	**111,226**	**124,089**	**132,740**

(*a*) Receipts from consignors and sales by producer agents. (*b*) Includes Australian Capital Territory. (*c*) Excludes Tasmania.

Particulars of the production of whole egg pulp as recorded by the Egg Marketing Board for the State of New South Wales and by the Australian Egg Board for the other States are shown in the following table.

LIQUID WHOLE EGG PULP: PRODUCTION RECORDED BY EGG BOARDS STATES, 1961-62 TO 1965-66

('000 lb)

State	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales	20,916	11,500	9,272	18,463	12,539
Victoria	12,000	7,684	3,216	5,456	3,283
Queensland	3,321	3,864	3,922	5,731	5,443
South Australia	3,374	2,836	3,001	2,639	4,148
Western Australia	620	533	835	1,450	977
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total(*a*)	**40,231**	**26,417**	**20,246**	**33,739**	**26,390**

(*a*) Excludes Tasmania.

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1965–66 amounted to 3,877,000 lb and 2,663,000 lb, respectively, compared with 2,866,000 lb and 2,135,000 lb, respectively, in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

Consumption of eggs and egg products

Because of the operations of producers in areas outside the control of the Egg Boards and the extent of 'back-yard' poultry-keeping, for which no statistics are collected, figures relating to total egg production must be accepted with some reserve. The production shown in the following table, together with details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control, plus estimates of production from uncontrolled areas and from 'back-yard' poultry-keepers.

ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL AUSTRALIA, 1936–37 TO 1965–66

Period	Change in stocks	Estimated total production	Exports (a)	For drying and pulping(b)	Apparent consumption in Australia	
					Total	Per head per year
	mill. doz	mill. doz	mill. doz	mill. doz	mill. doz	dozen
Average three years ended—						
1938–39 . .	−0.1	152.7	13.0	5.5	134.3	19.5
1948–49 . .	+0.1	204.7	17.7	39.1	147.8	19.3
1958–59 . .	+0.1	189.9	9.6	23.0	157.2	16.1
Year—						
1961–62 . .	−0.2	215.8	5.8	35.5	174.7	16.5
1962–63 . .	−0.3	207.2	4.6	23.9	179.0	16.6
1963–64 . .	+1.2	210.1	4.3	21.0	183.6	16.7
1964–65 . .	+0.1	225.0	4.2	31.9	188.8	16.8
1965–66 . .	−0.1	227.3	4.7	27.2	195.5	17.1

(a) Includes ships' stores. (b) Includes wastage.

Details of the annual consumption of shell eggs, liquid whole egg and total shell egg equivalent per head of population are shown in the following table.

SUPPLIES OF EGGS AND EGG PRODUCTS AVAILABLE FOR CONSUMPTION: AUSTRALIA 1936–37 TO 1965–66

(Per head per year)

Period	Eggs in shell	Liquid whole egg and egg powder (a)	Total	
			Number	Weight(b)
	number	number		lb
Average for three years ended—				
1938–39 . .	235	8	243	26.6
1948–49 . .	232	23	255	27.9
1958–59 . .	194	12	206	22.5
Year—				
1961–62 . .	198	14	211	(c) 26.4
1962–63 . .	199	11	210	(c) 26.3
1963–64 . .	200	14	214	(c) 26.7
1964–65 . .	202	13	216	(c) 26.9
1965–66 . .	205	13	218	(c) 27.3

(a) In terms of number of eggs in shell. (b) The average weight of an egg in Australia was taken as 1.75 oz for years prior to 1960–61. From 1960–61 the average weight has been taken as 2 oz. (c) Not comparable with years prior to 1960–61. *see* footnote (b)

Overseas trade in poultry products

Details of the exports of poultry products in each of the years 1963–64 to 1965–66 are shown on page 991.

EXPORTS OF POULTRY PRODUCTS: AUSTRALIA
1963–64 TO 1965–66

		Quantity			Value ($'000 f.o.b.)		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Eggs in shell	'000 doz	3,599	3,327	3,935	1,153	921	1,124
Eggs not in shell—							
In liquid form(*a*)	'000 lb	9,493	17,119	14,484	2,228	3,840	3,280
Dry	'000 lb	421	158	257	168	123	189
Frozen poultry	'000 lb	501	792	857	226	331	350
Poultry, live(*b*)	number	1,027,871	735,911	323,601	258	184	79

(*a*) Includes frozen pulp. (*b*) Includes day-old chicks.

Imports of canned poultry in 1965–66 amounted to 526,000 lb, valued at $138,000, compared with 226,000 lb, valued at $63,000, in 1964–65.

The bee-farming industry

Production of honey and bees-wax

Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. It is a feature of the industry that it consists mainly of itinerant apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from flora suitable for their bees. The returns of honey from productive hives during 1965–66 show an average of 128.9 lb per hive, and the average quantity of wax was 1.7 lb per productive hive.

BEEHIVES, HONEY AND BEES-WAX: STATES AND A.C.T., 1965-66

State or Territory	Beehives(*a*)			Honey produced		Bees-wax produced	
	Productive	Unproductive	Total	Quantity	Gross value	Quantity	Gross value
	'000	'000	'000	'000 lb	$'000	'000 lb	$'000
New South Wales	92	75	167	7,343	953	95	46
Victoria	82	19	101	9,608	1,403	115	55
Queensland	22	20	41	1,472	145	25	11
South Australia	66	9	75	9,929	858	136	53
Western Australia	42	9	51	10,923	650	138	52
Tasmania	7	3	9	630	86	8	7
Australian Capital Territory	1	1	1	80	8	1	..
Australia	310	135	446	39,985	4,103	519	224

(*a*) At 30 June 1966.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora, particularly the eucalypts, which varies greatly from year to year.

HONEY AND BEES-WAX PRODUCTION: STATES AND A.C.T. 1936-37 TO 1965-66

('000 lb)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
HONEY								
Average for three years ended—								
1938–39	3,005	3,107	700	2,874	1,299	200	3	11,188
1948–49	14,934	8,232	2,185	8,292	2,831	206	34	36,714
1958–59	12,853	7,239	2,071	5,924	6,548	398	44	35,077
Year—								
1961–62	15,326	10,314	1,281	8,405	7,982	279	64	43,651
1962–63	14,087	4,818	2,941	4,147	6,099	547	40	32,679
1963–64	15,135	9,460	2,053	9,722	8,510	632	135	45,647
1964–65	13,701	9,180	3,794	6,527	8,066	715	97	42,080
1965–66	7,343	9,608	1,472	9,929	10,923	630	80	39,985
BEES-WAX								
Average for three years ended—								
1938–39	49	39	11	38	23	2	.	162
1948–49	174	86	36	110	34	3	..	443
1958–59	163	81	31	94	81	5	..	455
Year—								
1961–62	208	135	22	123	94	4	1	587
1962–63	177	64	44	56	79	6	..	426
1963–64	194	110	32	134	103	6	2	581
1964–65	185	105	52	90	106	10	1	549
1965–66	95	115	25	136	138	8	1	519

Honey levy

A levy is imposed on domestic sales of honey for the purpose of financing the operations of the Australian Honey Board. The current rate of levy, which became effective on 14 February 1966, is four-tenths of a cent per lb, but under the provisions of the *Honey Levy Act* 1962–66, it can be increased by regulation to a maximum of one cent per lb. The proceeds of this levy may be expended on the regulation of Australian exports of honey and on associated promotional and research activities. In 1963–64, 1964–65 and 1965–66 collections amounted to $81,000, $104,000 and $101,000 respectively.

Overseas trade in bee products

The principal importer of Australian honey in 1965–66 was the United Kingdom, importing 13,229,000 lb, valued at $1,203,000.

Bees-wax was exported mainly to the United Kingdom and the Federal Republic of Germany in 1965–66.

EXPORTS OF HONEY AND BEES-WAX: AUSTRALIA, 1963-64 TO 1965-66

		Quantity			Value ($'000 f.o.b.)		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Honey	'000 lb	18,859	13,710	16,234	2,764	1,431	1,646
Bees-wax	lb	161,347	257,828	238,198	71	111	104

Value of dairy, poultry and bee production and indexes of price and quantum of production

Value of dairy, poultry and bee production, 1961-62 to 1965-66

The following table shows the gross value of dairy, poultry and bee products recorded at the principal markets in Australia.

GROSS VALUE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA
1961-62 TO 1965-66
($'000)

	1961-62	1962-63	1963-64	1964-65	1965-66
DAIRYING					
Whole milk used for—					
Butter(*a*)	135,824	147,076	152,750	157,989	154,862
Cheese(*a*)	22,682	25,116	27,456	30,119	25,603
Preserved milk products	19,282	19,088	21,132	23,806	24,197
Other purposes	131,946	132,010	138,522	145,310	149,589
Subsidy paid on whole milk for—					
Butter	24,494	24,500	24,500	24,500	24,500
Cheese	2,506	2,500	2,500	2,500	2,500
Total, whole milk (including subsidy)	*336,734*	*350,290*	*366,860*	*384,224*	*381,250*
Pigs slaughtered	53,906	62,606	65,998	75,408	77,284
Dairy cattle slaughtered	21,832	26,482	30,664	45,624	49,438
Total, dairying	**412,472**	**439,378**	**463,522**	**505,256**	**507,973**
POULTRY					
Total, poultry	**121,722**	**123,630**	**138,182**	**137,425**	**154,603**
BEE-FARMING					
Honey	3,754	3,296	5,778	4,866	4,103
Bees-wax	260	184	250	253	224
Total, bee-farming	**4,014**	**3,480**	**6,028**	**5,119**	(*b*) **4,323**

(*a*) Excludes Commonwealth subsidy which is shown separately. (*b*) Discrepancy in addition due to wording.

Values of dairy, poultry and bee-farming production for 1965–66 and earlier years are shown in the following tables. Further information on values, including definitions of the terms used, is given in the chapter Miscellaneous.

GROSS, LOCAL AND NET VALUE OF DAIRY, POULTRY AND BEE PRODUCTION STATES AND TERRITORIES, 1965-66

($'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Local value of production	Value of materials used in process of production	Net value of production(*a*)
New South Wales . .	224,228	31,540	192,688	(*b*) 59,956	132,732
Victoria	242,116	13,065	229,050	64,268	164,782
Queensland . . .	87,877	6,363	81,515	28,102	53,413
South Australia . .	48,774	2,201	46,573	19,017	27,556
Western Australia . .	32,899	1,945	30,954	14,028	16,926
Tasmania	29,806	1,638	28,168	8,426	19,741
Northern Territory . .	310	2	308	n.a.	308
Australian Capital Territory	889	78	811	266	545
Australia	**666,899**	**56,832**	**610,067**	**194,063**	**416,003**

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowance has been made for costs of power, power kerosene, petrol and other oils.

NET VALUE OF DAIRY, POULTRY AND BEE PRODUCTION(*a*) STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W. (*b*)	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (*c*)
			NET VALUE ($'000)				
1961–62 . .	117,804	112,752	47,126	22,320	10,444	14,708	325,964
1962–63 . .	124,912	135,426	52,932	21,498	11,332	16,334	363,184
1963–64 . .	131,838	152,640	57,018	23,604	12,714	18,116	396,870
1964–65 . .	135,235	161,371	55,550	27,080	14,709	20,760	415,771
1965–66 . .	132,732	164,782	53,413	27,556	16,926	19,741	416,003
			NET VALUE PER HEAD OF POPULATION($)				
1961–62 . .	29.82	38.14	30.79	22.85	14.01	41.65	30.74
1962–63 . .	31.09	44.98	34.08	21.59	14.78	45.61	33.63
1963–64 . .	32.35	49.69	35.99	23.13	16.15	49.95	36.05
1964–65 . .	32.68	51.48	34.39	25.83	18.26	56.69	37.04
1965–66 . .	31.57	51.63	32.42	25.57	20.52	53.44	36.35

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No deduction has been made for costs of power, power kerosene, petrol and other oils. (*c*) Includes Northern Territory and Australian Capital Territory.

Indexes of quantum and price of dairy, poultry and bee production

For details of the methods of calculating these indexes and of the weights used *see* the chapter Miscellaneous.

INDEXES OF QUANTUM(*a*) AND PRICE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA, 1961-62 TO 1965-66

(*Base: Average* 3 *years ended June* 1939 = 100)

	1961–62	1962–63	1963–64	1964–65	1965–66
Quantum(*a*) of production—					
Milk	125	129	131	132	133
Other products	135	130	133	143	147
Total, dairy, poultry and bee . .	*128*	*129*	*131*	*136*	*138*
Per head of population . .	83	82	82	83	83
Price—					
Milk	373	380	382	403	395
Other products	371	410	452	472	491
Total, dairy, poultry and bee . .	*373*	*388*	*402*	*423*	*422*

(*a*) Indexes of value at constant prices, i.e. quantities revalued at average unit values of base years 1936–37 to 1938–39.

CHAPTER 23

WATER CONSERVATION AND IRRIGATION

RESOURCES, UTILISATION AND NATIONAL AND INTERSTATE ASPECTS

Official Year Book No. 51, pages 228–31, contains a description of recent developments in the measurement of Australia's water resources. For information concerning general, descriptive and historical matter *see also* Year Book No. 37, pages 1096–1141.

For further details on geographical and climatic features determining the Australian water pattern, *see* the chapter Physiography; on water supply and sewerage in metropolitan areas, cities and towns, the chapter Local Government; and on the generation of hydro-electric power, the chapter Electric Power Generation and Distribution of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259–65 of Year Book No. 46, and a map showing the extent of known artesian basins throughout Australia is shown on page 273 of Year Book No. 48.

Water resources and their utilisation

Surface supplies

An assessment of Australia's surface water resources has been made, based on measured and estimated stream flows within 197 river basins, as follows. The total average annual discharge of Australian rivers has been assessed at 280 million acre feet. This can be divided into 108 million acre feet measured discharge and 172 million acre feet estimated for areas where there are generally no gauging records. For the whole area of Australia (approximately 3 million square miles) only 1.9 million square miles are regarded as contributing to stream flow (i.e. there is practically no flow from Western Plateau drainage division and from arid parts of other divisions).

The flow of Australian rivers is small in comparison with the flow of rivers in other continents, some examples of which, expressed as mean annual discharges in millions of acre feet, are: Amazon, 2,950; Mississippi, 465; Mekong, 405; Niger, 308; Volga, 205; and the ten major rivers of the United States of America in the aggregate, 900.

Major dams and reservoirs

The table below lists existing major dams and reservoirs, together with those under construction and those projected, at June 1966. The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are many others of smaller capacity in Australia.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
		EXISTING DAMS AND RESERVOIRS		
Eucumbene	Eucumbene River, New South Wales	3,890,000	381	Part of Snowy Mountains Hydro-electric Scheme
Eildon	Upper Goulburn River, Victoria	2,750,000	260	Storage for irrigation and for the generation of electricity
Hume	Murray River, near Albury, New South Wales	2,480,000	142	Part of Murray River Scheme—storage for domestic stock and irrigation purposes. Hydro-electric power also developed
Menindee Lakes Storage	Darling River, near Menindee, New South Wales	2,000,000	..	Part of Darling River Water Conservation Scheme
Miena	Great Lake, Tasmania	1,710,000	60	Storage for Poatina hydro-electric power station
Warragamba	Warragamba River, New South Wales	1,670,000	379	For Sydney water supply. Also provides for generation of hydro-electricity and flood mitigation

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

EXISTING DAMS AND RESERVOIRS—*continued*

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
Burrendong	Macquarie River, near Wellington, New South Wales	1,361,000	250	Storage for rural water supplies
Burrinjuck	Murrumbidgee River, New South Wales	837,000	264	Storage for irrigation and production of hydro-electric power
Somerset	Stanley River, Queensland	735,000	173	Brisbane–Ipswich water supply, flood mitigation and small hydro-electric power station
Jindabyne	Snowy River, New South Wales	558,000	225	Part of Snowy Mountains Hydro-electric Scheme
Lake Victoria	Murray River, near South Australian border, in New South Wales	551,700	..	Natural off-river storage for irrigation in South Australia. Storage improved by construction of embankments and control regulators
Lake Echo	Lake Echo, Tasmania	442,000	60	Storage for Lake Echo, Tungatinah, Liapootah, Wayatinah and Catagunya hydro-electric power stations
Clark	Derwent River, Tasmania	434,000	220	Storage for Tarraleah, Liapootah, Wayatinah, and Catagunya hydro-electric power stations
Arthur Lakes	Source of Lake River, near Great Lake, Tasmania	410,000	50	Part of Great Lake hydro-electric power development
Keepit	Namoi River, near Gunnedah, New South Wales	345,000	177	For rural water supplies and hydro-electricity generation
Waranga	Goulburn River, Victoria	333,400	..	Irrigation storage
Tinaroo Falls	Barron River, North Queensland	330,000	136	For irrigation purposes in the Mareeba-Dimbulah area
Glenbawn	Hunter River, near Scone, New South Wales	293,000	251	Part of Hunter Valley conservation work, for irrigation and flood mitigation
Rocklands	Glenelg River, Victoria	272,000	..	Part of Wimmera-Mallee domestic and stock water supply system
Eppalock	Campaspe River, near Heathcote, Victoria	252,860	150	To supplement supply to Bendigo and for irrigation
Wyangala	Lachlan River, New South Wales	(*a*)245,000	200	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power. (*See also* under Dams and Reservoirs under Construction)
Tantangara	Murrumbidgee River, New South Wales	206,000	148	Part of Snowy Mountains Hydro-electric Scheme
Avon	Avon River, New South Wales	173,800	232	Part of Sydney water supply
Upper Yarra	Yarra River, Victoria	162,000	270	For Melbourne water supply
Glenmaggie	Gippsland, Victoria	154,300	100	Storage for irrigation
Lake St Clair	Central Highlands, Tasmania	154,200	..	Improved natural storage for Tarraleah hydro-electric power station
Wellington	Collie River, Western Australia	150,100	112	For supply of water to irrigation districts and to agricultural areas and country towns
Grahamstown	Grahamstown River, near Newcastle, New South Wales	147,000	35	To supplement supply to Newcastle and district
Koombooloomba	Tully River, North Queensland	146,000	123	For hydro-electric and irrigation purposes
Serpentine	Serpentine River, Western Australia	144,000	171	For Perth water supply
Lake Brewster	Lachlan River, near Hillston, New South Wales	123,900	..	Storage of rural water supplies for the lower Lachlan
Cairn Curran	Loddon River, Victoria	120,600	..	Storage for irrigation

(*a*) Temporary reduced level.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
DAMS AND RESERVOIRS UNDER CONSTRUCTION				
Blowering	Tumut River, New South Wales	1,320,000	370	For regulation of discharges from stations of Snowy Mountains Hydro-electric Scheme, primarily for irrigation but also for hydro-electric power generation
Wyangala	Lachlan River, New South Wales	1,000,000	270	Strengthening and enlarging of existing dam for increased water supply and hydro-electric power generation. (*See also* under Existing Dams and Reservoirs)
Wuruma	Nogoa River, Central Queensland	157,000	120	For irrigation storage
Rowallan	Mersey River, North Tasmania	110,000	140	Storage for Mersey Forth power development
Eungella	Broken River, North Queensland	104,000	150	Provision of cooling water for Collinsville power station and for irrigation purposes
DAMS AND RESERVOIRS PROJECTED				
Chowilla	Murray River, in South Australia, near Victorian border	*a*5,000,000	41	Regulation of the lower Murray River
Ord River (main)	Near Wyndham, Western Australia	3,500,900	200	For irrigation, generation of hydro-electric power and flood mitigation. (Additional 6,000,000 acre feet flood control proposed)
Maraboon	Nogoa River, Central Queensland	1,170,000	148	For irrigation and probable thermal power station
Buffalo (second stage)	Buffalo River, near Myrtleford, Victoria	800,000	260	For irrigation
Talbingo	Tumut River, New South Wales	700,000	530	Part of Snowy Mountains Hydro-electric Scheme
Warkworth	Wollombi Brook, Hunter Valley, New South Wales	406,000	130	Flood mitigation and irrigation dam for the Hunter Valley
Mokoan	Winton Swamp, near Benalla, Victoria	300,000	35	To store flood flows in Broken River for irrigation
North Pine	North Pine River, near Petrie, Queensland	164,000	125	To supplement supply to northern Brisbane area

(*a*) Subject to final survey.

Irrigation

For some brief remarks on the history of irrigation in Australia *see* issues of the Year Book prior to No. 39. Trends in irrigation practice in more recent years were described in Year Book No. 37, page 1099.

AREA OF LAND IRRIGATED, STATES AND TERRITORIES, 1961-62 to 1965-66

(Acres)

Season and crop	N.S.W. (*a*)	Vic. (*b*)	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961–62	964,748	1,117,900	209,419	108,400	48,679	23,189	538	1,303	2,474,176
1962–63	1,036,846	1,151,555	221,161	112,813	51,501	24,285	434	1,247	2,599,842
1963–64	1,060,479	1,137,241	252,082	117,870	55,194	33,570	973	1,081	2,658,490
1964–65	1,198,404	1,189,055	281,173	123,139	63,035	34,322	587	1,120	2,890,835
1965–66—									
Cotton	n.a.	..	6,333	..	8,307	..	..	..	(*c*) 14,640
Hops	..	(*d*)	..	..	(*e*)	1,524	..	..	(*c*) 1,524
Orchards	36,065	44,851	(*f*) 9,049	31,089	11,566	7,241	66	8	139,935
Rice	64,341	..	..	..	(*e*)	..	(*g*)	..	(*c*) 64,341
Sugar-cane	(*d*)	..	140,994	..	(*e*)	..	..	..	*c* 140,994
Tobacco	n.a.	n.a.	12,116	..	..	..	..	..	(*c*) 12,116
Vegetables	16,593	27,653	38,726	10,665	9,944	12,994	114	83	116,772
Vineyards	16,361	45,697	(*h*)	28,850	844	..	..	..	(*c*) 91,752
Other crops (including fodder and fallow land)	432,830	123,027	90,070	16,637	6,707	5,786	408	493	675,958
Total, crops	*566,190*	*241,228*	*297,288*	*87,241*	*37,368*	*27,545*	*588*	*584*	*1,258,032*
Pastures	742,249	1,021,433	35,246	41,594	30,039	17,651	183	541	1,888,936
Total, 1965-66	1,308,439	1,262,661	332,534	128,835	67,407	45,196	771	1,125	3,146,968

(*a*) *Source:* Water Conservation and Irrigation Commission. (*b*) *Source:* State Rivers and Water Supply Commission. (*c*) Incomplete, *see* individual States. (*d*) Not available separately; included in Other crops. (*e*) Not available for publication; included in Other crops. (*f*) Includes vineyards. (*g*) Not available for publication; excluded from totals. (*h*) Included with Orchards.

Irrigation research

Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following: high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilisation of irrigated pastures by stock; growth problems affecting plants and trees; the prevention of evaporation from water storages; the potability of saline waters for stock; the de-salting of brackish waters; and cloud-seeding over catchments.

Irrigation is studied by the Commonwealth Scientific and Industrial Research Organization at a number of its research stations and laboratories, the principal one being the Irrigation Research Laboratory at Griffith (New South Wales), where investigations are concerned with limiting the degradation of land by irrigation, improving the quality and range of irrigated crops, and assessing the amount of water required by irrigated crops and the most economical means of applying it. The crops being studied include citrus, cotton, wine grapes and lucerne. The Organization's Division of Plant Industry studies irrigated pastures at Deniliquin (New South Wales) and Canberra (Australian Capital Territory), and tobacco at Mareeba (Queensland). At Adelaide (South Australia) and Merbein (Victoria) the Horticultural Research Section is working on problems of the dried-fruit industry. The Division of Land Research conducts research on rice at the Coastal Plains Research Station, Darwin (Northern Territory), and on a number of irrigated crops, including rice, safflower, linseed, and cotton, at the Kimberley Research Station (Western Australia). The Division has also carried out a number of hydrological investigations in connection with the utilisation of underground water for irrigation. The Division of Soils and the Soil Mechanics Section are studying methods of reducing seepage from earthen dams, and take part in the examination of the physical properties of sediments beneath proposed dam sites. The Division of Soils is also looking at underground water movement and the water balance in the south-east of South Australia, and at the drainage and soil moisture regime of the irrigated swamps of the lower Murray River. The Division of Physical Chemistry is investigating methods of minimising evaporation losses from water storages by the use of monomolecular layers.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee and Coleambally Irrigation Areas. It is representative of the New South Wales Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales, the Water Conservation and Irrigation Commission, and the Rice Marketing Board of New South Wales, and secondary industries and farmers' organisations. Finance is provided by these authorities on an agreed basis. The objectives are: to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organisation; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and to co-ordinate the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

Preservation of catchments

Since water conservation commences on the catchments it is becoming increasingly recognised that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimise the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reforestation and the preservation of catchments. In recent years efforts to counteract soil erosion have been intensified, and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

Sub-surface supplies

Much of Australia's underground water is obtained from artesian and sub-artesian basins and is used for stock purposes and domestic use. These supplies are indispensable in most inland areas. The quality of the water ranges from usable to very saline. In inland areas a considerable amount of water has been tapped that is unusable because of its high salt content. Because of this, development of an economic desalting process would provide the interior with additional large quantities of usable water.

Considerable use is also made of sub-surface water, other than pressure water, from local storages, particularly in the well-settled areas. The water is used mainly for domestic and stock purposes. Compared with other countries with similar rainfall and climate, underground water is not used extensively for town and individual industrial supplies, but its use for these purposes is increasing.

Artesian and sub-artesian supplies. Pressure water (either artesian or sub-artesian), variable in quantity and quality, is obtainable in many parts of Australia, the various artesian basins extending over about half the continent. A map of Australia showing the extent of the known artesian basins appears on page 273 of Year Book No. 48.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 676,250 square miles, comprising about 421,000 in Queensland, 135,000 in South Australia, 81,250 in New South Wales and 39,000 in the Northern Territory. The table below shows the principal defined water-bearing basins in Australia.

More than 18,000 artesian bores have been drilled within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated as exceeding 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but most is unsuitable for plant life, while in certain areas sub-artesian waters are suitable for all uses including irrigation. In the Eucla Basin and parts of the Murray and Pirie-Torrens Basins the water is of poor quality, being barely suitable for stock.

In common with other countries possessing artesian supplies Australia has been faced with the problem of flow diminution. It was recognised early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, others will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by permeable outcrops, mainly sandstone and limestone. Diminution in flows from artesian bores has emphasised the need to eliminate wastage as much as possible. Licences now issued for the construction of new artesian bores prohibit the distribution of water through drains, channels, etc., and the supplies must be confined to the borehead or piped to appropriate watering points.

PRINCIPAL WATER-BEARING BASINS IN AUSTRALIA

Name	State	Geological age of chief aquifers	Approximate area	Depth to pressure water
			square miles	feet
Great Artesian	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic	676,250	Up to 7,000
Canning	Western Australia	Mesozoic-Palaeozoic	150,000	100 to 1,800
Murray	Victoria, New South Wales and South Australia	Miocene-Eocene	109,000	100 to 1,300
Georgina (including Barkly and Daly)	Northern Territory, Queensland	Cretaceous, Ordovician, Cambrian, and Upper Proterozoic	108,000	150 to 1,000
Eucla	Western Australia, South Australia	Pliocene-Miocene	74,000	300 to 2,000
Carnarvon	Western Australia	Cretaceous, Permian	45,000	200 to 4,000
Perth	Western Australia	Recent, Jurassic	21,000	200 to 2,500
Western District (Otway)	Victoria	Pleistocene-Upper Cretaceous	13,000	100 to 4,500
Basins of Ord-Victoria region	Northern Territory, Western Australia	Mainly Cambrian and Permian	12,000	200 to 1,000
Pirie-Torrens	South Australia	Recent, Pleistocene	9,000	Up to 600
East Gippsland	Victoria	Pleistocene-Eocene	3,500	200 to 3,500
Adelaide	South Australia	Recent, Oligocene	1,100	200 to 600

Shallow groundwater. Shallow groundwater supplies are used in various parts of Australia for industry, irrigation, stock, and domestic purposes. Two examples of the use of these shallow supplies for industrial and domestic purposes occur in New South Wales. The Hunter District Water Board pumps 15 million gallons a day for general use from the Tomago coastal sands near Newcastle, and at Botany, Sydney, private industry pumps 8–10 million gallons a day for its own use from similar sands. Exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day. Examples of the use of shallow groundwater supplies for irrigation include the Burdekin Delta and the Bundaberg area in Queensland. In the Burdekin Delta, which covers an area of some 200 square miles, the present extraction for irrigation from underground sources is in the region of 200,000 acre feet per annum (about 150 million gallons a day) and in the Bundaberg area it is approximately 50,000 acre feet per annum (about 37 million gallons a day).

A scheme for artificial recharge of underground supplies has been implemented on the north side of the Burdekin Delta. Pumping at a rate of 90 cusecs from unregulated river flows will provide for an average recharge of 41,000 acre feet per annum to the aquifer.

In recent years there has been a marked increase, particularly in Queensland, New South Wales and Victoria, in investigation into the groundwater resources of river and coastal alluvium for irrigation and town water supplies.

National and interstate aspects

As the Commonwealth Constitution makes special reference to water rights, both the Commonwealth and the State Governments have an interest in the control and conservation of water. The main responsibility for control of water resources rests with the individual State Governments, but as political boundaries sometimes intersect river valleys and catchments, co-operation between Governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following paragraphs.

Australian Water Resources Council

The Australian Water Resources Council was established by joint action of the Commonwealth and State Governments in 1962. The council comprises the Minister for National Development as Chairman, the Minister for Territories, and the Ministers for Water Supply in each State. The Minister for the Interior, who is responsible for the Commonwealth Bureau of Meteorology, is a co-opted member. It has as its principal objective the provision on a continuing basis of a comprehensive assessment of Australia's water resources and the extension of measurement and research so that future planning can be carried out on a sound and scientific basis.

An important factor is that the Council is not concerned with particular works projects, normally the responsibility of the States or the Commonwealth, for which there are established channels, such as the Premiers' Conference and Loan Council, for the exchange of views and allocation of funds.

Assisting the Council is a Standing Committee of senior officers from Commonwealth and State water authorities, and there are a number of committees advising the Standing Committee, namely: Water Research and Education and Steering Committee, Technical Committee on Surface Water, Technical Committee on Underground Water, Advisory Committee on Hydraulics Laboratory Facilities, and a number of *ad hoc* panels.

The Water Resources Council published, early in 1965, a *Review of Australia's Water Resources (Stream Flow and Underground Resources)* 1963. Among important matters receiving attention the more urgent include recommendations for the provision of a Commonwealth-States water resources research fund and of a post-graduate scholarship scheme.

In 1964 Australian Governments adopted an accelerated programme of stream-gauging (surface water measurement) to extend over the next ten years. They have also recognised the need for a continuous programme of underground water investigations. Under the *States Grants (Water Resources) Act* 1964 the Commonwealth Government grants financial assistance to the States in connection with the measurement and investigation of their water resources. This means that $3,692,000 of additional funds (a 60 per cent increase on current rates of expenditure) relative to these programmes could be made available over the three years to 1966–67.

All authorities represented on the Council and its committees have agreed to work towards a common, nation-wide system of recording hydrologic data in a digital form suitable for rapid analysis by computer. The Council is also giving attention to the extent to which particular kinds of water research and specialised training of research workers can assist in bringing about the comprehensive water resources assessment envisaged as the Council's objective.

Murray River scheme

The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 408,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and a small part of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Darling (1,700 miles), the Murrumbidgee (980 miles), and the Goulburn (350 miles). The average annual flow of each of the chief contributory streams is as follows: Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,820,000 acre feet; Darling River, 2,820,000 acre feet; Goulburn River (including Broken River), 2,580,000 acre feet; Murrumbidgee River, 2,050,000 acre feet; and Ovens River, 1,266,000 acre feet. Irrigated production in the Murray River Basin is mainly grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, and fat lambs.

River Murray Waters Agreement. For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia *see* issues of the Year Book prior to No. 39. Under the Agreement construction works are carried out by the States (which are also responsible for maintenance) subject to the approval and direction of the River Murray Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to

South Australia in each year shall be sufficient to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949 *see* Year Book No. 40, page 1065, and earlier issues.

At a conference of Ministers held in 1949 to consider the diversion of the Snowy River it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440.000 acre feet per annum would be added to the Murray River (*see* Snowy Mountains Hydro-electric Scheme, page 1004) and that increased storage should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for enlargement of the Hume Reservoir by 500,000 acre feet to 2,500,000 acre feet. A conference of Ministers in 1954 agreed to the enlargement, and it was also agreed that the Commission should be given power to construct regulators and to carry out such other work on the Murray River between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7 April 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the Murray River, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following ministerial conferences, amendments were ratified by the four Parliaments concerned, and came into force on 6 November 1958.

Further amendment of the Agreement to provide for the construction of a storage of approximately 5,000,000 acre feet capacity at Chowilla in South Australia was ratified by legislation in the Commonwealth and State Parliaments and came into force on 30 April 1964. The dam will be located some six miles downstream from the border between Victoria and South Australia, and will consist of concrete outlet structures and a bank forty-one feet high across the flood plain. The overall length of the dam will be three and one-third miles, and the lake formed behind it will extend to Wentworth Weir, a distance of about 120 miles by river.

As a temporary measure, to assist in drought mitigation pending completion of the Chowilla reservoir, it has been agreed that portion of the waters in the Menindee Lakes storage will be made available to the Commission for allocation between the States of New South Wales, Victoria and South Australia. The arrangement, to operate for a period of seven years from 1 January 1963, was approved by the *Menindee Lakes Storage Agreement Act* 1963.

The quantity (in acre feet) of water diverted during 1965–66 from the Murray and its tributaries for irrigation and other purposes was as follows: New South Wales, 2,063,000; Victoria, 2,553,000; South Australia, 350,750; a total of 4,966,750 acre feet.

River Murray works. One of the major works of the Murray River scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, ten miles above Albury, forming a lake of 50,000 acres. The design comprises a mass concrete spillway and outlet works extending for 1,000 feet, and an earthen embankment 142 feet high extending for 4,000 feet across the river flats, the length of the total structure being approximately one mile. Work on the enlargement of the reservoir to its approved capacity of 2,500,000 acre feet was completed in 1961.

The Yarrawonga Diversion Weir, which was completed in 1939, raised the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan junction and the other below the Lachlan junction.

The Mulwala Canal, supplied from the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, servicing 1,800,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, serving 300,000 acres. Not all of this area is irrigated.

Adjoining the river in New South Wales, and 35 miles from the Murray-Darling junction, Lake Victoria storage, with a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. The inlet channel to Lake Victoria was enlarged in 1957 to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing materially to the large amount of irrigation development in the Murray Basin. The main storages are: New South Wales—Menindee Lakes Storage (Darling), Burrinjuck (Murrumbidgee), Keepit (Namoi), Burrendong (Macquarie), and Wyangala (Lachlan); Victoria—Eildon (Goulburn), Waranga (Goulburn), Eppalock (Campaspe), and Cairn Curran (Loddon). Details of these and other State works on Murray tributaries will be found in the sections dealing with State systems. No storages exist on the Murray in South Australia at present, but the construction of a large storage at Chowilla is proposed (*see* page 1003).

New South Wales-Queensland Border Rivers Agreement

The catchments for the border streams of New South Wales and Queensland (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland), and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that from April to October it is necessary to supplement rainfall by irrigation to stabilise and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

The New South Wales-Queensland Border Rivers Agreement came into effect on 1 July 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, Macintyre, and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland for the furtherance of water conservation, water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Water Conservation and Irrigation Commission of New South Wales (the constructing authority) to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir on the Macintyre River at Goondiwindi and the existing weir on the Barwon River at Mungindi (the Irrigation and Water Supply Commission of Queensland is the constructing authority for new weirs and regulators). The cost of these works and of administration are to be borne by the States in equal shares. The Agreement further provides that the water discharge from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

After unfavourable foundation conditions were disclosed at several dam sites on the Dumaresq River, investigations were extended to tributary streams, and superficially suitable sites located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates were prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Following exploratory drilling of the tributary sites, a report dealing with alternative storage proposals and possible amendments to the existing Agreement was submitted to the participating States. It was subsequently agreed by the State Governments that, at the appropriate time, the existing Agreement would be amended to include, *inter alia*, provision for the construction of storages on Pike Creek (Queensland) and the Mole River (New South Wales).

Completed works include Bonshaw and Cunningham Weirs on the Dumaresq River, a weir and regulator on the Barwon River at the offtake of the Boomi River, and a low level weir to establish a pumping pool at Glenarbon on the Dumaresq River. The existing Goondiwindi and Mungindi Weirs are being maintained, operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed it is unlikely that any other weirs will be required.

Snowy Mountains Hydro-electric Scheme*

Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the Committee of reports in 1948 and 1949, the Commonwealth Parliament passed the *Snowy Mountains Hydro-electric Power Act* 1949 setting up an Authority to implement the proposals agreed upon.

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* *See also* the chapter Electric Power Generation and Distribution. For more detailed information *see* special article by the Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX. Miscellaneous of Year Book No. 42.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The scheme involves two main diversions, that of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and that of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geehi Rivers for power generation also provide additional regulation of these streams, and this makes more water available for irrigation. Details of the two trans-mountain diversions and the associated power works together with details of progress and construction are given in the chapter Electric Power Generation and Distribution.

An additional 500,000 acre feet of water per annum is now available for irrigation in the Murrumbidgee Valley. When all works are completed, it is estimated that the total gain to the Murrumbidgee by diversion and regulation will amount to 1,120,000 acre feet per annum and the total gain to the Murray will be 800,000 acre feet per annum. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land, which is expected to result in a substantial increase in annual primary production.

International aspects

Australia maintains contact with international developments in water conservation and irrigation through its membership, since 1952, of the International Commission on Irrigation and Drainage. This Commission was set up in India in 1950 in order that the technical experience of all countries might be pooled for the benefit of all, and to promote the development and application of the science and technique of irrigation and drainage in the engineering, economic and social aspects. The Commission is constituted of National Committees of participating countries, and fifty-seven countries, including Australia, have already been admitted to membership.

The Central Office of the International Commission is situated in New Delhi, India. Congresses, which are held every three years, have taken place in India, Algeria, the United States of America, Spain and Japan, in that order. The sixth Congress was held in India in January 1966.

An Australian National Committee was established following a meeting of representatives of Australian authorities held in Melbourne in 1953. At that meeting it was decided, *inter alia*, 'that a National Committee should be formed and that the National Committee would consist of representatives of Government Departments, Statutory Authorities, firms, and individuals actively interested in irrigation and drainage'. The Committee meets annually.

Under the National Water Resources Development Programme the Commonwealth Government is to grant to the States approximately $50 million during the next five years. The main aim of the programme is to increase water conservation for drought mitigation and to increase primary production. Accordingly, projects principally for urban purposes or hydro-electric power generation will not be included.

STATES AND TERRITORIES

The foregoing text deals with water conservation and irrigation in Australia generally and with international, national and interstate aspects. The following survey covers the local pattern of water resources and the steps taken by the State Governments to bring about their development. In the various States water policies tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria almost every form of water scheme is in operation. In New South Wales major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilise sugar production. Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

New South Wales

On page 1110 of Year Book No. 37 information is given on the pattern of rainfall and the history of irrigation in New South Wales. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Administration

The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, 1912–1955 the right to the use and flow and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales-Queensland Border Rivers Agreement ratified by Acts of both States in 1947, *see* page 1004 of this chapter.

Schemes summarised

The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, and by the Menindee Lakes Storage on the Darling River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc. in many places. A head storage on the Macquarie River is nearing completion and construction of a dam has commenced on the Tumut River near Tumut. In addition, substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Areas. The Areas are: The Murrumbidgee Irrigation Areas, consisting of 451,263 acres served with water through a channel system stemming from the river at Berembed Weir; the Coomealla Irrigation Area of 34,626 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,393 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,850 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres, supplied from the Edward River by diversion at Stevens Weir; the Buronga (8,739 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas, served by pumping from the Murray; and the Coleambally Irrigation Area (139,572 acres), served by diversion from the Murrumbidgee River. All these Areas are administered by the Commission, and details of the various schemes are given in the table on page 1007.

The capacities of the main storages (in acre feet) are:

Darling—Menindee Lakes Storages (2,000,000);

Murray—Half share of Hume Reservoir, weirs and locks to Wentworth (1,351,570); Stevens Weir, Edward River (7,165);

Macquarie—Burrendong Dam (964,000); installation of radial gates will increase storage by 397,000 acre feet for flood mitigation;

Murrumbidgee—Burrinjuck Dam (837,000); Berembed Weir (10,000); Redbank Weir (7,360); Maude Weir (6,740);

Namoi—Keepit Dam (345,000);

Lachlan—Wyangala Dam (temporary reduced level 245,000); Lake Brewster (123,900); Lake Cargelligo (29,435); Jemalong Weir (2,200); and

Hunter—Glenbawn Dam (185,000 acre feet irrigation storage; 108,000 acre feet flood mitigation storage).

The total length of supply channels, drains, escape channels and pipe lines constructed by the Water Conservation and Irrigation Commission in New South Wales is 4,922 miles. This comprises 3,420 miles of supply channels (including main canals), 1,433 miles of drains and escape channels, and 69 miles of pipe lines.

Extent of systems and nature of irrigated culture

The following table shows the areas of the various irrigation systems and the areas irrigated in 1965–66 and corresponding particulars for the State as a whole during the seasons 1961–62 to 1965–66.

AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES 1961-62 TO 1965-66

(*Source:* Water Conservation and Irrigation Commission)

(Acres)

Season and system	Total area	Area irrigated(a)									
		Rice	Other cereals grown for grain	Fodder crops		Pastures	Vineyards	Orchards (b)	Vegetables	Fallow land and miscellaneous	Total
				Lucerne	Other						
1961–62	6,952,579	50,223	57,779	40,273	14,024	527,845	11,515	18,080	2,784	50,443	c 964,748
1962–63	6,972,239	53,578	85,459	42,814	18,296	520,167	13,086	21,559	4,033	72,179	c1,036,846
1963–64	6,912,942	59,331	82,376	45,823	11,846	505,176	12,810	24,451	2,859	82,046	c1,060,479
1964–65	6,912,735	61,617	132,624	42,901	9,491	552,888	14,305	27,605	4,375	81,494	c1,198,404
1965–66—											
Irrigation Areas—											
Murrumbidgee (within the Areas)	451,263	30,691	52,972	7,204	4,235	114,069	6,442	20,316	3,550	34,730	274,209
Lands adjacent supplied under agreement	n.a.	..	..	298	445	1,207	..	104	..	150	2,204
Coomealla	34,626	..	..	..	17	..	4,919	1,820	..	..	6,756
Curlwaa	10,393	..	..	..	65	..	379	1,264	..	..	1,708
Hay	6,850	..	..	160	935	1,765	..	..	..	..	(d) 2,860
Tullakool	18,006	999	470	150	180	7,270	..	..	..	183	9,252
Buronga	8,739	..	..	..	..	..	235	530	..	..	765
Mallee Cliffs	1,900	..	..	..	47	..	143	139	..	..	329
Coleambally	139,572	11,723	24,083	1,297	1,173	21,582	50	46	189	23,720	83,863
Total, Areas	*(e)671,349*	*43,413*	*77,525*	*9,109*	*7,097*	*145,893*	*12,168*	*24,219*	*3,739*	*58,783*	*381,946*
Irrigation Districts—											
Benerembah	112,818	5,162	13,043	1,646	2,437	41,605	..	..	174	10,183	74,250
Tabbita	32,330	306	2,051	755	124	3,978	..	..	..	1,128	8,342
Wah Wah	579,132	..	5,693	2,123	1,178	11,050	..	..	..	3,997	24,041
Berriquin	804,057	..	20,756	19,649	1,470	251,626	..	..	175	2,565	296,241
Wakool	503,322	8,132	8,173	1,503	2,169	73,810	..	..	36	1,492	95,315
Denimein	147,005	2,904	4,045	1,175	440	15,755	..	5	5	105	24,434
Jemalong and Wylde's Plains	224,556	..	3,080	6,320	1,170	6,210	..	..	..	..	16,780
Gumly	353	..	32	32	12	60	..	20	42	..	198
Deniboota	338,054	4,424	5,430	2,475	835	30,890	..	..	2	1,365	45,421
Total, Districts	*2,741,627*	*20,928*	*62,303*	*35,678*	*9,835*	*434,984*	..	*25*	*434*	*20,835*	*585,022*
Flood Control Districts—											
Lowbidgee	399,707	..	..	..	..	..	..	..	..	..	n.a.
Medgun	272,800	..	..	..	..	..	..	..	..	..	n.a.
Total, Flood Districts	*672,507*	..	..	..	..	..	..	..	..	..	*n.a.*
Irrigation Trusts—											
Pomona	1,580	..	..	..	..	..	760	130	..	..	890
Goodnight	1,104	..	..	..	..	..	580	43	3	..	626
Bungunyah-Koraleigh	1,810	..	..	..	..	..	915	113	159	..	1,187
Glenview	661	..	..	..	..	..	..	..	..	341	341
Bringan	4,933	..	..	..	..	..	..	..	..	..	n.a.
Bama	3,446	..	..	..	..	..	..	..	..	..	n.a.
Total, Trusts	*13,534*	..	..	..	..	..	*e 2,255*	*(e) 286*	*(e) 162*	*(e) 341*	*(e) 3,044*
Water Trusts—											
Domestic and stock supplies	2,829,791	..	..	..	..	..	..	..	..	..	..
Licensed diversions	n.a.	..	24,231	57,114	33,485	161,372	1,938	11,535	12,258	36,494	338,427
Total, 1965-66	**6,928,808**	**64,341**	**164,059**	**101,901**	**50,417**	**742,249**	**16,361**	**36,065**	**16,593**	**116,453**	**1,308,439**

(*a*) Excludes Flood Control Districts and some Irrigation Trusts, particulars for which are not available. (*b*) Citrus and deciduous; in 1965–66 deciduous amounted to 12,833 acres, of which 10,504 acres were in the Murrumbidgee Irrigation Areas. (*c*) Includes total area irrigated by Licensed Diversions, but details for individual crops, etc., are not available. (*d*) Includes lands outside irrigation areas supplied under special agreement. (*e*) Incomplete.

Irrigation Areas

Murrumbidgee. These areas, together with adjacent lands supplied under agreement, received 459,146 acre feet, or nearly a quarter of the total water (2,158,813 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam on the Murrumbidgee, forty miles north-west of Canberra. The catchment above the dam is about 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbita, Benerembah and Wah Wah, and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district, and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter, fed by melting snows and spring freshets, and is released during the September-May irrigation season. It passes along the river channel to Berembed Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 106 miles from the off-take. Reticulation channels aggregate approximately 900 miles and drainage channels 880 miles. In addition, approximately 440 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee Areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission.

The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas only, and has no jurisdiction over land transactions in the adjacent irrigation districts, although it is responsible for the operation and maintenance of the water supply in these areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission by purchase or under perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30 June 1966 was 411,508 acres, including 37,524 acres held for short lease grazing, agriculture, etc.

The land on which the Murrumbidgee Irrigation Areas and associated districts are situated originally comprised large sheep stations and was sparsely populated, but at 30 June 1966 its population was approximately 29,560, that of Leeton Shire being 10,956 and that of Wade Shire, 17,779. The principal products of the Murrumbidgee Irrigation Areas are wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans, and root vegetables. Rice growing was initiated on the Areas in 1924 and has since become the most important crop. In a normal season the water supplied for rice represents about half the total delivered to the Areas.

Other Irrigation Areas. The Coomealla, Tullakool, Buronga, Mallee Cliffs, Hay, Curlwaa, and Coleambally Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which is responsible also for the operation and maintenance of works to supply water.

Irrigation Districts

These districts are set up under the Water Act, 1912–1955 for (*a*) domestic and stock water supply and (*b*) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilise the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on 'extensive' irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. 'Water right' means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Deniboota and Denimein Districts is diverted through a main canal which is approximately 100 miles long. Water for the Wakool Irrigation District and the Tuliakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. At 30 June 1966 the total length of completed canals and channels in Berriquin District was 1,000 miles, comprising Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 788 miles, escape channels 105 miles, and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day. Wakool, with 422 miles of channel, contains 323 holdings, and the area developed by irrigation includes about one acre in six of the total area. Sheep raising and rice growing are the main industries. Considerable subdivision has occurred within the Berriquin District, and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Sheep (including fat lambs), dairying and wheat growing are the main industries.

Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts

The Water Act, 1912–1955 provides for the constitution of Trust Districts for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilise necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following are the water trusts, other than irrigation, as at present constituted (the area in acres of each district being shown in parenthesis): *Murray River*—Little Merran Creek (157,440), Bullatale Creek (68,320), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,007,780); *Lachlan River*—Marrowie Creek (292,640), Torriganny, Muggabah and Merrimajeel Creeks (170,240), Ulonga (64,960), Micabil Weir (11,500), Condobolin West Weir (4,480); *Miscellaneous*—Great Anabranch of Darling River (959,184), Nidgery Weir (46,880), Algudgerie Creek (9,760), Collarenebri town water supply (117)—making in all a total area of 2,829,791 acres. Twelve of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. There are six of these trusts.

The Lowbidgee Provisional Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district, Medgun, near Moree in the north-west, is also in operation.

River, lake and farm water supplies

During recent years the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognised as a means of stabilising production in dry months. There has also been a considerable increase along the Murrumbidgee, Lachlan, Namoi, and Macquarie Rivers.

Under the Farm Water Supplies Act, 1946, technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams, flood and spray irrigation systems.

Underground water

Extensive use is made of artesian, sub-artesian, and shallow underground water. The Great Artesian Basin underlies an area of some 81,250 square miles in north-western New South Wales. Eighty-seven Bore Water Trusts and twelve Artesian Wells Districts have been constituted. Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts the settlers maintain the drains. Bore Trusts and Artesian Districts cover 5,500,000 acres and distribute water through 3,500 miles of open earth drains. At 30 June 1966, 1,150 artesian bores had been constructed in the New South Wales section of the Basin. At that date 676 bores were flowing and were capable of producing about 63,650,000 gallons a day. Conservation measures control this to about 51,500,000 gallons a day. The total length of bore drains, including those for Trusts and Districts, is approximately 8,000 miles.

Of other structural basins of sedimentary rocks, e.g. Murray, Sydney, Oxley, and Clarence Basins, the Murray is the largest and also the most important in that it affords stock water supplies over an extensive area of the south-western section of the State. Only a few of these bores flow, the remainder being sub-artesian. Good supplies for stock and, in some instances, small scale irrigation, are obtained from porous sandstone in the Moss Vale-Picton area, but the remainder has limited potential. Stock supplies are obtained from bores in the fringe zones of the Oxley Basin, but the centre of this basin lies under the Liverpool range. The Clarence Basin is relatively unimportant from a groundwater viewpoint, but stock supplies are obtained from some sections.

In other parts of the State the largest and best quality groundwater supplies are obtained from sands and gravels in the alluvium of the major rivers and their tributaries, particularly the western-flowing rivers, e.g. Lachlan, Macquarie and Namoi. Supplies of up to 180,000 gallons an hour are obtained from wells and screened bores in these areas and are used for irrigation and town water supply. The Government is carrying out investigations to determine the groundwater potential of the alluvium of such valleys, particularly with regard to irrigation use, and a test-boring programme is in progress in the Lachlan and Namoi Valleys. Coastal river systems have a much more limited potential in this regard, the main exception being the Hunter. Old sand dune areas along the coast provide large supplies of good quality water. However, since the soils of these areas are not suited to agricultural pursuits, exploitation has been largely confined to the Sydney and Newcastle areas. Initially a source of Sydney's water supply, the Botany sands are now utilised mainly by industry. The Tomago sands provide a considerable proportion of the Newcastle water supply.

The older rocks, which are mostly folded and jointed, are very variable in their groundwater potential and only rarely do they yield supplies sufficient and suitable for limited irrigation. Where suitable conditions obtain, they yield useful stock supplies, mostly at depths between 50 and 250 feet.

A licence under the Water Act, 1912–1955 is required for all bores sunk in any part of New South Wales, and details of over 30,000 bores and wells in the State are recorded. When assessed in relation to the geologic and topographic conditions of any particular area, such records provide valuable evidence of the groundwater potential and are thus of considerable benefit to landholders.

Future programme

The programme of development in hand includes the provision of additional dams and storages, diversion weirs, and flood mitigation and river protection works in various parts of the State. Work has commenced on a dam at Blowering on the Tumut River, and legislation has been passed authorising the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme intiated in New South Wales. At Wyangala Dam, on the Lachlan River, the fixed crest of the dam spillway has been lowered temporarily to enlarge the spillway for passage of greater floods. Construction has commenced on a new earth and rock-fill dam which will be built behind the present dam to give a storage of 1,000,000 acre feet. Within the new Coleambally Irrigation Area further development of farms has been carried out and water is being supplied by the new diversion weir at Gogeldrie. At 30 June 1966, 194 large area farms and 14 horticultural farms had been allotted.

Victoria

Particulars of the rainfall pattern of Victoria were given on page 1117 of Year Book No. 37. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Administration

Victorian Governments have been active in the development of country water supplies since the 1860's when major works to supply the Bendigo goldfields were undertaken. Local trusts to construct and operate waterworks under Government supervision were provided for in the *Water Conservation Act* 1881. Development under the trust system was greatly stimulated by the *Irrigation Act* 1886, which provided for the construction of national headworks by the State, and vested in the Crown the right to the use and control of all surface waters. By 1900 there were 33 irrigation trusts and 18 other rural water supply trusts, but the system of local control was then breaking down under financial difficulties.

The *Water Act* 1905 established the State Rivers and Water Supply Commission to take over the Irrigation Trust districts (except the still-existing First Mildura Irrigation Trust) and to exercise the State's functions in the further control and development of surface waters outside the metropolis. The Commission now supervises all private diversions from streams and directly administers irrigation districts covering 2,247,000 acres, rural waterworks districts covering 7,000,000 acres, drainage and flood protection districts covering 165,600 acres, and urban water supplies serving 200,000 people. It also supervises the activities of local urban water supply authorities supplying 600,000 people in more than 200 towns, as well as 80 local sewerage authorities and 25 river improvement and drainage authorities.

Works summarised

Since the State Rivers and Water Supply Commission began its operations in 1906 the capacity of storages under its control has been increased from 172,000 acre feet to 4,600,110 acre feet. In addition, Victoria has in effect a half share in River Murray Commission storages totalling 2,703,150 acre feet, bringing total capacity available to Victoria at 30 June 1966, to 5,951,680 acre feet. Most of the water used from these storages is for irrigation. The area irrigated has increased from 105,000 acres in 1906 to 1,262,661 acres in 1965–66. Irrigation deliveries in 1965–66 totalled 1,970,607 acre feet. The value of irrigation production in 1964–65 was estimated at $157,250,000. Of the total irrigation production about one-quarter was from lands irrigated by 'private diverters', i.e. irrigators who are authorised to take water from streams, lakes, etc., but who do not come within the boundaries of an irrigation district.

Storages

Capacities of principal storages (in acre feet) at 30 June 1966 were as follows:

Goulburn System—Eildon, 2,750,000; Waranga, 333,400; total, 3,104,100;

Murray System—half share of Murray storages, 1,351,570; Lake Buffalo, 19,500; total, 1,411,930;

Loddon System—Cairn Curran, 120,600; Tullaroop, 60,000; total, 272,950;

Campaspe River—Coliban storages, 62,730; Eppalock, 252,860; total, 316,690;

Wimmera-Mallee Systems—Rocklands, 272,000; total, 627,890;

Gippsland—Glenmaggie, 154,300; total, 154,340;

Werribee-Bacchus Marsh—total, 34,900;

Mornington Peninsula—total, 17,640.

Nature of irrigated culture

The following table shows the areas irrigated in the various irrigation systems in 1965–66, and corresponding particulars for the State as a whole during the seasons 1961–62 to 1965-66.

AREA OF LAND IRRIGATED: VICTORIA, 1961-62 TO 1965-66

(*Source:* State Rivers and Water Supply Commission)

(Acres)

Season and system	Cereals	Fodder crops		Pastures			Vineyards	Orchards	Market gardens	Fallow and miscellaneous	Total
		Lucerne	Other	Native	Sown						
					Annual	Perennial					
1961–62 . .	27,586	41,253	16,468	69,505	421,277	409,648	44,563	42,671	22,197	22,732	1,117,900
1962–63 . .	26,113	43,180	22,820	61,317	418,025	440,360	45,757	43,059	22,634	28,290	1,151,555
1963–64 . .	14,878	42,878	21,031	41,360	427,160	453,986	45,257	43,891	24,422	22,378	1,137,241
1964–65 . .	8,048	42,320	14,116	51,210	443,227	484,634	47,778	44,743	26,884	26,095	1,189,055
1965–66—											
Goulburn-Campaspe-Loddon .	20,111	21,611	9,220	29,066	256,665	192,606	356	22,786	3,585	12,145	568,151
Murray—											
Torrumbarry .	6,804	4,846	3,669	19,650	124,897	76,699	3,131	2,544	891	1,694	244,825
Murray Valley Irrigation Area	440	6,933	2,704	425	61,112	39,592	41	5,986	383	276	117,892
Pumping(*a*) .	136	816	192	364	88	189	38,594	3,272	171	1,455	45,277
Total, Murray	*7,380*	*12,595*	*6,565*	*20,439*	*186,097*	*116,480*	*41,766*	*11,802*	*1,445*	*3,425*	*407,994*
Other northern systems. .	62	1,175	. .	724	1,621	10,988	. .	3,293	500	. .	18,363
Southern systems	111	1,281	593	2,391	1,308	67,019	. .	678	6,132	373	79,886
Private diversions (*b*) . . .	1,683	11,354	2,745	2,347	26,735	106,947	3,575	6,292	15,991	10,598	188,267
Total, 1965-66	29,347	48,016	19,123	54,967	472,426	494,040	45,697	44,851	27,653	26,541	1,262,661

(*a*) Includes First Mildura Irrigation Trust. (*b*) Excludes private diverters in the Torrumbarry System, but includes all other private diverters along the Murray River.

Irrigation systems

Goulburn–Campaspe–Loddon. The principal storage for Goulburn waters is Lake Eildon, which was completed in 1956, submerging the original 306,000 acre feet Eildon storage completed in 1927. For the distribution of additional supplies available from Eildon and from other new storages on the Loddon and Campaspe rivers it has been necessary to undertake major enlargements in the distribution system by a long term programme of channel works which is still in progress. Deliveries have increased from 395,000 acre feet in 1954–55 to 798,000 in 1965–66. Goulburn river water is diverted to the irrigation areas by gravitation from the pool formed by the Goulburn Weir, near Nagambie, completed in 1890 as a State work. The East Goulburn main channel of 1,000 cusecs capacity supplies the areas around Shepparton. Two 1,500 cusec channels to the west convey water to the off-river Waranga Reservoir and supply part of the Rodney area through offtakes on the way From Waranga Reservoir there are two main outlets, one supplying the western part of the Rodney area and the other, of 1,200 cusecs capacity, supplying the Waranga Western Main Channel, which runs more than 100 miles west across the Campaspe and Loddon valleys to Boort.

Flows in the Waranga Western Main Channel are augmented by the injection of Campaspe water through a pumping station of 200 cusecs capacity near Rochester. Supply to the Tragowel and Boort areas is augmented by gravitational diversion of Loddon water.

The gross area of holdings in the Goulburn–Campaspe–Loddon systems is 1,352,217 acres. The main products are dairy produce, fruit, wool, and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.

Murray River system. Water is diverted from the Murray by gravity at the Yarrawonga Weir for the Murray Valley Irrigation Area and at the Torrumbarry Weir for the Torrumbarry irrigation system which extends to Swan Hill. Holdings in the Murray Valley area total 301,807 acres, devoted mainly to dairying, fat lambs and canning fruit. Holdings in the Torrumbarry system total 365,126 acres, devoted mainly to dairying and the production of fat lambs, with a concentration of vineyards, orchards and market gardens around Swan Hill.

Downstream from Swan Hill there are 5 districts supplied by pumping: the district of the First Mildura Irrigation Trust and the 4 Commission districts of Nyah, Robinvale, Red Cliffs, and Merbein. These districts together serve 80,596 acres, producing mainly dried vine fruits, with some citrus fruits and table and wine grapes.

Southern systems. The Macalister district, covering 130,595 acres around Maffra and Sale, is supplied from the Macalister River, regulated by Lake Glenmaggie, and from the unregulated flow of the Thomson River. Dairy farming is the principal activity. The Bacchus Marsh and Werribee Districts, supplied from storages in the Werribee River only 20 miles west of Melbourne, cover 16,344 acres intensively developed for dairying and vegetables.

Wimmera-Mallee domestic and stock supply system

Storages in the Grampians in south-west Victoria ensure farm water supplies over an area of 11,000 square miles extending northward through riverless pastoral and cereal lands to the Murray. Farm dams throughout this region, which covers one-eighth of the total area of the State, are filled once each year, in the winter–spring season, through the medium of 6,500 miles of Commission channels and 3,000 miles of private channels. Without this supply, occupation of the region would be extremely hazardous. Headworks storage capacity has now been increased from 563,800 acre feet to 627,890 acre feet by construction of Lake Bellfield. Fifty towns, with a population of 46,000, receive their supply from the same system. Near Horsham and Murtoa, close to headworks in the south, a supply is maintained for the irrigation of an area of 7,500 acres, mainly for dairying.

Drainage, flood protection and river improvement

The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup–Cardinia flood protection district embracing 89,245 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth several million dollars each year.

By the *River Improvement Act* 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and, since 1950, 25 such trusts have been formed. The importance of river improvement work is expected to continue to grow.

In 1963 the Dandenong Valley Authority was created, by special legislation, with jurisdiction over the whole catchment of the Dandenong Creek (300 square miles) for purposes of arterial drainage, river improvement and flood protection. In June 1966 the Authority took over the Commission's Carrum Drainage District.

Finance

The net capital liability of the Commission at 30 June 1966 for works under its direct control was $276 million. Of this amount, $181 million was expended for irrigation and $20 million for rural, domestic and stock supplies, the costs being borne entirely by the State. The total liability for urban supplies was $39 million, of which $24 million was borne by the districts concerned. The remaining $36 million was for expenditure on flood protection and drainage districts ($4 million), items such as loan flotation expenses, miscellaneous surveys and investigations, and buildings, plant and stores.

Underground resources

Underground water. The investigation, exploration and survey of underground water resources in Victoria is carried out jointly by the State Rivers and Water Supply Commission and the Department of Mines. The Commission is concerned mainly with investigation of shallow waters in irrigation districts, while the Department covers all other work, including exploratory drilling to 5,500 feet. Underground water is the only available source of supply other than rain in some areas of the State. It is of particular importance in the western portions of the Wimmera-Mallee districts where annual rainfall ranges between 10 and 20 inches and there are no surface streams. Elsewhere underground water is used to supplement surface supplies and in places it may be the only developed source for town, industry, rural, domestic, stock, or irrigation use.

The Wimmera and Mallee districts are situated over part of the Murray Basin where, to the west of the Wimmera River, Miocene marine limestones form an aquifer with water suitable for town supply and irrigation. It is used for this purpose at Kaniva, Murrayville and Nhill, where yields between 10,000 and 60,000 gallons per hour may be obtained. North of Murrayville and Underbool the water in the limestones is more saline and in the extreme north it is too saline even for stock use. East of the Wimmera River to Lake Tyrrell and north of Swan Hill the marine rocks consist of marls and silts with calcareous beds capable of yielding saline water at less than 1,000 gallons per hour. These aquifers are not developed. Lower Tertiary swamp, deltaic and estuarine carbonaceous and ligneous sediments underlie and extend eastward of the marine rocks. Sands in these sediments contain water of greater or lesser salinity than that of the marine deposits. Yields of up to 10,000 gallons per hour have been obtained from the deltaic aquifers between Swan Hill and Robinvale. In the Natya–Kenley area the water is suitable for most stock purposes and for limited irrigation under favourable conditions. Overlying the marine and estuarine sediments there are aquifers consisting of Pliocene to Pleistocene terrestrial, fluviatile and lacustrine sands and sandstones. Yields from these rocks are limited to windmill supplies. The quality is variable and in the north-west highly saline. East of the Avoca River the deposits of the Murray Basin are entirely non-marine and consist of terrestrial, fluviatile and lacustrine gravels, sands, silts, and clays to a maximum depth of about 600 feet. Water from the sands and gravels is of variable quality. In places it is too saline for stock use, but the quality improves towards the east and it is used for town supply at Katunga and Wangaratta, and at Barnawartha, Bright and Chiltern where the deposits partly fill valleys in the bedrock of the highlands.

In the Otway Basin in the south-west of Victoria the Upper Cretaceous-Lower Tertiary sands have been developed for underground water supplies to Portland, Heywood, Port Fairy, Peterborough, Port Campbell, and Timboon. In the central (Warrnambool and Koroit) and northern parts of the basin the waters are suitable only for stock. In the areas of better quality water the depth of the aquifers (2,000–4,500 feet) renders their development uneconomic except for town supply and industry. Oligocene to Miocene marine limestones occur in the south-central and western portions of the basin. The salinity of the water in the limestones is often less than that of the water in the sands beneath, but the limestone waters are generally hard. They are used in part to supply Portland and also for irrigation. Small underground water supplies are obtained from the Pliocene-Pleistocene deposits of ferruginous sands, marine sandy limestones and dune limestones in the west and from the dune limestones along the coast between Warrnambool and Portland.

In and around the structural depressions of the Port Phillip and Western Port Bay districts there are several small areas where underground water of good quality occurs. Among these are the Lower Tertiary sand aquifers at Anglesea which are being developed to yield approximately 200,000 gallons per hour for industrial purposes; the Middle Miocene sands, shelly silts and limestones which have been developed for market garden watering south-east of Melbourne; and the Pleistocene sands and shelly silts on the Nepean Peninsula where the water is used for market gardens and pasture irrigation.

Irrigation. Brackish waters in the Eocene to Oligocene sands under the Werribee Plains have some potential for industrial use. The Westernport area has yielded large supplies of water from Tertiary marine and non-marine sands, and from fractured fresh basalt in some areas. Extensive use is made of water from the sands for irrigation of pastures and cash crops in the Koo-wee-rup Swamp area. Yields of up to 30,000 gallons per hour are common. In the Lang Lang area the water is used for town and industrial supply, but not as yet for irrigation. Stock supplies with one or two minor exceptions are available at shallow depth over the whole of the area.

The Gippsland Basin contains two main groups of water-bearing rocks, the Lower Tertiary coal measures and marine sands, and the Upper Tertiary sands and gravels. Water from the Lower Tertiary rocks is frequently high in bicarbonate and therefore soft. It is used for irrigation at Bairnsdale and Yarram, and some abnormally hot water is used for industrial purposes at Maryvale. The Upper Tertiary rocks yield large quantities of very good quality water, mainly in the east-central part of the basin, where it is used extensively for irrigation. Stock supplies are generally available at shallow depth in rocks of various types and ages.

The pre-Upper Cretaceous sedimentary and igneous rocks of the highland areas generally yield small supplies of water suitable for stock. Exceptions to this are the Devonian sandstones of the Grampians where large supplies of good quality water may be obtained, and the better quality waters suitable for domestic use from the higher rainfall area of the eastern highlands of the State.

The Lower Tertiary volcanic rocks, mainly basalts, yield large supplies, up to 15,000 gallons per hour where the basalt is well jointed and little weathered, but only small quantities where the rocks are weathered. Where yields are large as in the west and south-west of Gippsland and on French Island the water quality generally is suitable for irrigation, but on the Bellarine and Mornington Peninsulas, Phillip Island and at Cranbourne the small yields of water are suitable for limited stock use only. Pliocene to Pleistocene volcanic rocks, basalts with tuffs and agglomerate occur extensively over the Werribee Plains and Western District and in valleys in the western half of the Central Highlands. Yields from these rocks are variable, the maximum recorded being 16,000 gallons per hour. From the weathered basalt yields are usually less than 1,000 gallons per hour. The quality is generally suitable only for stock but may be suitable for irrigation. Underground water derived from the later basalts of the stony rises west of Colac usually has high nitrate content.

Future programme

In July 1963 the Government announced plans for a long-term storage programme to cost a total of $75 million between 1963–64 and 1973–74. Three storages, namely Chowilla Reservoir (a River Murray Commission Storage). Lake Buffalo (second stage) and Lake Mokoan, appear in the list of dams and reservoirs projected in the table on page 999.

Other works are:

(*a*) An extensive channel enlargement and remodelling project in the Goulburn system (*see* pages 1011–2);
(*b*) Tarago Reservoir on the Tarago River to supplement supply to the Mornington Peninsula area;
(*c*) Nillahcootie Reservoir on the Broken River below Mansfield, to be used for irrigation;
(*d*) Lake Merrimu on Coimadai Creek, to be filled mainly from the Lerderderg River and Goodmans Creek, and to be used to supplement water supplies at Werribee and Bacchus Marsh; and
(*e*) Corop Lakes, two natural lakes near Rochester, to be used as an adjunct to Waranga Basin for off-river storages for irrigation.

Queensland

Particulars of the rainfall pattern of Queensland are given in Year Book No. 37, page 1122. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Administration

In Queensland the right to the use and flow of non-tidal surface water contained in, or flowing through or past, the land of two or more occupiers, and all artesian and sub-artesian water vests in the Crown. Subject to certain reservations for local authority and other purposes, such water is controlled by a Commissioner of Irrigation and Water Supply. Private diversions from watercourses, artesian wells and, in certain declared areas, sub-artesian wells, are subject to licence by the Commissioner. Dams and weirs are constructed by the Commissioner to safeguard supplies in streams from which private pumping for irrigation takes place, and also to provide water for irrigation areas established by the Commissioner. For a description of the development of the present administration *see* Year Book No. 42 and earlier issues.

Irrigation—extent, systems and methods

In Queensland sugar cane represents in value nearly half the total agricultural production of the State. In 1965–66 almost 23 per cent of the sugar cane acreage was irrigated, representing 42 per cent of the total area irrigated in the State. Tobacco is another major crop, and the area irrigated during 1965–66 represented 97 per cent of the total plantings.

Most irrigation in Queensland is undertaken by farmers operating under licence to obtain water by pumping from streams or from natural underground storages. Over half the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been developed extensively are the Burdekin Delta (Ayr-Home Hill area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg area), Lockyer Valley, and Redland Bay.

Furrow irrigation is used for cotton, sugar cane, some tobacco, and miscellaneous row crops. Spray irrigation is used widely on fruit, vegetables, fodder crops, sugar cane, and the major part of the tobacco crop. Irrigation is required round-the-year for most of Queensland, as the timing and duration of the summer 'wet' season are too variable to enable a definite non-irrigation season to be fixed, as can be done in southern States.

AREA OF LAND IRRIGATED: QUEENSLAND, 1961-62 TO 1965-66

Season and division	No. of irrigators	Area irrigated (acres)							
		Vegetables	Fruit and vineyards	Sugar cane	Tobacco	Cotton	Other crops	Pastures	Total
1961–62	8,433	32,139	6,537	74,541	13,671	2,040	59,947	20,544	209,419
1962–63	8,562	34,258	7,020	81,506	15,801	2,206	58,029	22,341	221,161
1963–64	8,930	36,329	7,315	98,204	15,079	2,717	65,078	27,360	252,082
1964–65	9,310	35,020	8,092	120,556	13,499	4,148	71,634	28,224	281,173
1965–66—									
Southern Queensland	6,928	31,992	7,556	45,633	1,967	3,904	70,213	27,969	189,234
Central Queensland	685	1,082	523	285	39	2,236	14,886	3,545	22,596
Northern Queensland	2,284	5,652	970	95,076	10,110	193	4,971	3,732	120,704
Total, 1965-66	**9,897**	**38,726**	**9,049**	**140,994**	**12,116**	**6,333**	**90,070**	**35,246**	**332,534**

Areas under private irrigation

In five important areas irrigation has been developed by private pumping. In the Lockyer Valley, 30 miles west of Brisbane, more than a third of an estimated total irrigable area of 60,000 adres is under irrigation. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation, which is necessary for continuous agricultural production. A number of small weirs with a total storage of 1,340 acre feet have been constructed on Lockyer Creek by the Irrigation and Water Supply Commission; these also tend to augment and conserve underground supplies. The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize, and dairy products.

The Callide Valley in central Queensland is an important source of grain, dairy products, fodder, and cotton and is largely dependant on irrigation from underground water resources. Some 10,000 acres are now irrigated from underground supplies. The broad expanses of alluvium in the Pioneer Valley near Mackay have been extensively developed for cane production. The area under irrigation from groundwater and surface supplies is some 12,000 acres. The lands in the vicinity of Bundaberg are cultivated for sugar cane production and over 40,000 acres are irrigated from surface and underground supplies.

The other important area is the fertile delta region of the Burdekin River, where the irrigated area is over 67,000 acres. The delta has ground water supplies at shallow depth, and these have been tapped to obtain supplies in the dry periods of the year. Sugar is the main crop irrigated, together with citrus fruits, pineapples, vegetables, and tobacco. In 1940 the Burdekin River Trust was formed to safeguard the sugar areas of the delta from erosion and floods, and an irrigation research station studies the development of pastures and crops. A scheme to replenish the subterranean water supplies in the North Burdekin Delta by pumping from the Burdekin River is in operation under the control of the North Burdekin Water Board. In the South Burdekin Delta a similar Board has been formed, and the required works are under construction.

Government irrigation areas and projects

The Irrigation and Water Supply Commission has constructed and operates five dams and forty-two weirs with a storage capacity of 568,126 acre feet. Water from these storages supplies the following four irrigation areas operated by the Commission and supplements numerous streams from which pumping for private irrigation takes place.

Mareeba-Dimbulah Irrigation Area. In 1952 an irrigation undertaking was established to assist tobacco production in the valleys of the Walsh and Barron Rivers. Tinaroo Falls Dam on the Barron River (330,000 acre feet) has been completed, and construction is proceeding on irrigation works to serve 78,000 acres (comprising 910 tobacco farms and 180 mixed farms), of which 49,000 acres will be irrigated. One hundred and eighty-six miles of channels have been constructed, and irrigation water from the dam is available to 579 farms. Tinaroo Falls Dam is also providing a regulated flow of water in Barron River at Kuranda for the generation of hydro-electric power at Barron Falls.

Burdekin River Irrigation Area. The Clare, Millaroo and Dalbeg sections of the Burdekin River Irrigation, Hydro-electric and Flood Mitigation Project have been completed. Located from twenty-five to sixty-five miles from the mouth of the Burdekin, these areas comprise 18,862 acres and obtain water from central pumping stations drawing from the river. Two storages of 7,670 acre feet and 2,550 acre feet capacity have been constructed about seventy-nine miles and seventy-two miles respectively from the mouth of the river. Sugar cane production predominates in the area.

Dawson Valley Irrigation Area. A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923, but work was discontinued after three weirs had been built in this area. Their total storage is 10,280 acre feet, covering about sixty-one farms (4,894 acres) in production. Dairy products and cotton account for the major part of the production from irrigated areas. Further development of the scheme is dependent on the provision of additional storage works.

St. George Irrigation Area. This area comprises 19 farms, of which a maximum of 3,275 acres can be irrigated from a weir on the Balonne River (8,200 acre feet). Fat lambs, wool, and fodder and cotton crops are the main products.

Several additional projects have recently been completed and work is in progress on others. Moogerah Dam (Warrill Valley Project) on Reynolds Creek (75,000 acre feet) is capable of serving some 11,000 acres of the Warrill Valley, and will provide water for the thermal power station now under construction at Swanbank, near Ipswich. Borumba Dam (Mary Valley Project) on Yabba Creek (34,500 acre feet) makes water available to maintain the town water supply for Gympie and allows extension of the area irrigated from the Mary River to about 18,000 acres. Callide Dam (37,800 acre feet) on Callide Creek, 9 miles upstream from Biloela, will provide cooling water for the Calcap power station and compensation water for maintenance of underground supplies along Callide Creek; provision has been made to increase the storage capacity to 87,000 acre feet. Leslie Dam (Upper Condamine Project), on Sandy Creek, has an initial capacity of 38,200 acre feet, with provision for later increase to 87,000 acre feet. Water from the dam is available for irrigation of sections of the Darling Downs downstream the Condamine River as far as Cecil Plains and for a supply to the city of Warwick. A 61,000 acre feet dam under construction at Coolmunda (Macintyre Brook Project) will allow irrigation of up to 8,000 acres. Wuruma Dam (Upper Burnett Project), under construction on the Nogoa River, will have a storage capacity of 157,000 acre feet for irrigation of 11,000 acres along 100 miles of the Burnett River. The Eungella Dam (Bowen-Broken Project), under construction on the Broken River, will have a storage capacity of 104,000 acre feet. It will provide cooling water for the Collinsville power station and irrigation water along the Bowen and Lower Burdekin rivers. The development of rivers constituting portion of the Queensland-New South Wales border, under the authority of the Dumaresq-Barwon Border Rivers Commission, is described on page 1004.

Rural Water Supply Areas

Although provisions existed in the Water Acts for many years for the constitution of rural water supply Areas and Boards, little advantage was taken of these powers until 1964 when an amendment of the Acts extended the purposes for which these Areas and Boards may be constituted and the methods of rating and financing of works, and provided for resumption or acquisition of lands by such Boards. This form of water supply is being sought increasingly by groups of landholders in various parts of Queensland to provide a reasonably economical measure of permanent supply for stockwatering, dairy and domestic purposes in areas prone to drought, and thus achieve a permanent form of drought relief. Usually the capital cost of works is met by a 50 per cent subsidy by the Government and the balance by a Board borrowing by Government guaranteed loan on the security of debentures.

At present five Rural Water Supply Areas, Grevillea, Back Creek, Brigooda, Tarampa, and Coreen, are operating, supplying 135 holdings covering 97,900 acres, reticulated by 74 miles of pipelines. Two other schemes, Proston and Roadvale, are in course of construction; these will supply a further 241 consumers by 104 miles of pipelines serving 57,550 acres.

Water conservation, irrigation and drainage schemes may also be carried out under these Acts, and two group irrigation proposals and ten group drainage proposals are currently under investigation. No subsidy has yet been considered for these proposals.

Underground water—Great Artesian Basin and other sources

The use of underground water supplies has been a very important factor in agricultural and pastoral development in Queensland. The Great Artesian Basin is the major source of stock water supplies over more than half the State. Elsewhere, supplies obtained at shallower depths, in porous, fractured or fissured rocks, are extensively used for domestic and stock purposes. Underground water also supports more than half the irrigated area in the State, supplies being obtained chiefly from alluvial formations along river valleys, and from river deltas, the most conspicuous example of which is the Burdekin River (*see* page 1015).

Great Artesian Basin

Western Queensland, beyond the 20-inch rainfall belt, is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores and, where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, excluding the Cloncurry mineral field and the Barkly Tableland. It comprises 421,000 square miles or nearly two-thirds of the total State area of 667,000 square miles.

Artesian water. Although the number of bores has gradually increased over the years, the total flow of all bores has declined from the peak flow of 351 million gallons a day. A report on the nature and structure of the Great Artesian Basin, presented in 1954, indicated that the output would continue its decline during the next sixty years, at which stage the flow from the remaining flowing bores would be of the order of 110 million gallons a day. The discharge from windmills, springs and other leakages, together with the underflow past the Queensland borders, would then be about 20 million gallons a day. It was further expected that the total discharge, of the order of 130 million gallons a day, would be in equilibrium with the recharge of the basin. It was anticipated that numbers of bores on higher ground would cease to flow during the next sixty years and the area served by the flowing bores would contract by perhaps twenty per cent.

Up to 30 June 1966, 2,966 artesian bores had been drilled, of which 1,947 were still flowing. The total depth drilled amounted to 4,141,424 feet and the estimated daily flow was 202 million gallons. Although very few bores exceed 2,000 feet in depth (the average depth is 1,397 feet) and a new bore greater than 4,000 feet deep is exceptional, the deepest bore recorded was sunk to 7,009 feet. Some bores which had been classified as 'ceased' have been inspected and found to be still flowing, while other ceased bores have responded to deepening and have recommenced flowing. Both the pressure and flow of artesian bores are steadily diminishing, the rate of decrease varying widely throughout the basin. Present average rates of diminution are: pressure, 1–2 feet of head; total flow, 2–3 per cent per annum. The greater part of the artesian discharge is distributed by some 15,500 miles of open earth channels, from which a large proportion of water is lost by soakage and evaporation, less than 10 per cent being actually used by stock.

Although artesian beds underlie a large area of the State, only 79,000 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams, and natural waterholes. At the present time an increasing use is being made of pipelines for the reticulation of artesian water. In many districts artesian bores do not provide economical watering facilities because of depth, limited area to be watered, and difficult terrain for distribution of water by drains. The quality of artesian water from the greater part of the basin is not suited for prolonged use for irrigation on most soils, nor are the supplies sufficient for both large scale irrigation and stock-watering. Practically the whole of the final steady-rate discharge from flowing bores will be needed for the watering of stock.

Shallower supplies, which come from beds unconnected with artesian beds, are of variable quality and volume. These supplies are available at depths of less than 1,000 feet over a large area of the basin. Some 11,911 sub-artesian bores within the Great Artesian Basin have been registered in Queensland. An important practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

Bore Water Areas. The constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at a cost beyond individual capacity, and to conserve artesian supplies by fully utilising flows from the existing bores on the land resumed for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by local boards or by the Commissioner of Irrigation and Water Supply, acting as a board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1965–66 are: areas constituted, 74; administered by the Commissioner, 55; administered by local boards, 6; number abolished, 13; area benefited, 4,810,734 acres; average rate per acre, 1.16 cents; number of flowing bores, 60; total flow, 25,211,000 gallons a day; drains served, 2,567 miles.

Other underground sources

Outside the Great Artesian Basin, ground water supplies can conveniently be divided into two broad groupings, (*a*) those obtained in porous, weathered, fissured, or fractured rocks, and (*b*) those obtained in unconsolidated sediments of Cainozoic age. In the first group, supplies, often within short distances, are widely variable both in quantity and quality, but are normally sufficient only for stock-watering purposes. Because storage is generally small, seasonal fluctuation of water level tends to be high, and this can have a significant effect on the supply available during dry seasons. Small to moderate irrigation supplies (up to a few thousand gallons an hour) are sometimes obtained and, in exceptional cases, particularly with basalts and limestones, supplies may be as much as 10,000 gallons an hour. The second group comprises the main irrigation supplies and, although a wide range may be found in the supply normally available from individual bores in any area, pumping rates as high as 10,000 gallons an hour are common. The availability of underground water has been investigated in a considerable number of alluvial valleys in south eastern Queensland and in a number of coastal areas, particularly in the vicinity of the estuaries of the Burnett, Pioneer and Burdekin Rivers, where underground water is the main source for irrigation of sugar cane.

Reference has already been made to the importance of underground water for irrigation in the Lockyer and Callide Valleys (*see* page 1015). Other areas in which irrigation supplies from alluvial formations have been extensively utilised include the Monto area, parts of

Barker and Barambah Creeks, Warrill Creek, Cressbrook Creek, the Upper Logan River, and parts of the Condamine River and its tributaries. Government authorities do not normally undertake private drilling for landholders, but assistance is given in the location and development of ground water supplies through the provisions of '*The Farm Water Supplies Assistance Acts*, 1958 *to* 1965 (*see* below). This assistance has considerably accelerated the use of underground water for irrigation, and there is no doubt that there are many areas with a large potential for future expansion.

Stock watering

A predominant interest in the field of water conservation has been the provision of stock and domestic water supplies in Queensland's great pastoral areas, which contain more than a third of the Commonwealth's cattle and about a seventh of the sheep. In addition to the stabilisation of water supplies in the pastoral areas, the provision of water along stock routes for travelling stock has received much attention in recent years.

Main stock routes. The Queensland Irrigation and Water Supply Commission acts as consultant and constructing authority to the Stock Routes Co-ordinating Board for watering facilities on stock routes. On completion, facilities are vested in local authorities for control and maintenance. From 1935, when the scheme was inaugurated, to 30 June 1966, 649 facilities had been completed, and at 30 June 1966, 35 facilities were under construction or investigation. A State-wide investigation is being carried out by the two authorities mentioned above to ascertain the general movement of stock, determine primary and secondary routes, register existing water facilities, and formulate a co-ordinated plan in regard to the provision of new watering facilities.

Channel Country stock routes. Under the *States Grants* (*Encouragement of Meat Production*) *Act* 1949–1954 the Commonwealth Government agreed to meet half the cost of providing additional watering facilities in stock routes leading into, along, and out of, the Channel country and on the route from Camooweal to Mount Isa. These routes connect with the main far-western route included in the State scheme inaugurated in 1935. This scheme was completed during 1962–63. The total number of watering facilities constructed since the commencement of the scheme was 37, at a total cost of $599,184.

Technical and financial assistance to farmers

'*The Farm Water Supply Assistance Acts*, 1958 *to* 1965' are designed to improve the standard of water supply installations on individual holdings, encourage greater development of individual irrigation schemes, provide greater stability of production, and avoid losses in time of drought as well as generally increase production. To achieve this purpose, the Acts authorise the provision of technical and financial assistance to landowners for the investigation, design and installation of approved works of farm water supply. All projects for which finance is provided under the Acts are carried out under Commission guidance, and for the payment of a small charge the Commission will advise on the construction of works designed by its staff, but for which the landowners do not require financial assistance under the Acts.

During 1965–66, 933 requests (615 for technical assistance only and 318 for technical and financial assistance) were dealt with in addition to advice on a further 769 requests on groundwater supplies. An amount of $1,110,953 was approved for advances under the Acts in 1965–66, and the amount advanced was $919,631.

South Australia

Brief particulars of the climatic conditions in South Australia are given on page 1129 of Year Book No. 37. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Administration

Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act, 1932–1966 and Water Conservation Act, 1936, both of which empower the Minister of Works to impound or divert the water from any lake, watercourse or underground source for the purpose of establishing and maintaining public water supply schemes. The Waterworks Act, 1932–1966 governs the principal reticulated water supplies in proclaimed water districts throughout the State. A feature of these supplies is the extensive network of water mains supplying country townships and farmlands where local water resources are practically non-existent.

Under the Water Conservation Act, 1936, small dams, wells, bores, rainsheds, storages and, in some instances, minor reticulation works are provided in remote areas to assist local settlers in development and to supply travellers and travelling stock.

Irrigation

Australian irrigation originated in the upper Murray of South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped onto the land or gravitated from the river.

The two major authorities administering irrigation areas are the Department of Lands and the Renmark Irrigation Trust. The Trust is controlled by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold and is self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 100 miles of reticulation channels.

The following table shows particulars of the areas of crops and pastures irrigated in the various areas during 1965–66 and in South Australia as a whole during the seasons 1961–62 to 1965–66.

AREA OF LAND IRRIGATED: SOUTH AUSTRALIA, 1961-62 TO 1965-66

(Acres)

Season and authority	Vine fruits	Tree fruits	Citrus fruits	Other crops(*a*)	Pastures	Total
1961–62	27,167	25,236		36,653	19,344	108,400
1962–63	27,384	26,876		36,745	21,808	112,813
1963–64	27,954	28,787		38,193	22,936	117,870
1964–65	28,286	30,094		28,795	35,964	123,139
1965–66—						
Department of Lands Irrigation Areas—						
Orchard land—						
Berri	4,708	1,389	1,650	..	..	7,747
Cadell	508	240	167	..	..	915
Waikerie	1,582	805	1,446	..	..	3,833
Cobdogla	4,220	285	339	..	..	4,844
Moorook	269	156	291	..	..	716
Kingston	139	57	261	..	..	457
Mypolonga	..	326	564	..	..	890
Chaffey–Ral Ral Division	743	268	14	..	..	1,025
War service land settlement—						
Chaffey–Cooltong Division	401	213	551	..	..	1,165
Loxton	3,273	876	2,185	..	..	6,334
Cobdogla–Loveday Division	242	42	52	..	..	336
Reclaimed swamp land—						
Monteith	..	..	..	..	985	985
Mypolonga	..	..	..	..	1,306	1,306
Wall	..	..	..	..	515	515
Murray Bridge–Burdett Division	..	..	..	..	106	106
Mobilong Division	..	..	..	..	432	432
Long Flat	..	..	..	..	340	340
Neeta	..	..	..	..	561	561
Pompoota	..	..	..	..	425	425
Cowirra	..	..	..	..	571	571
Jervois	..	..	..	..	3,669	3,669
Total, Irrigation Areas	*16,085*	*4,657*	*7,520*	..	*8,910*	*37,172*
Renmark Irrigation Trust	5,447	1,886	1,664	300	..	9,297
Private landowners	7,318	15,362		27,002	32,684	82,366
Total, 1965-66	**28,850**	**31,089**		**27,302**	**41,594**	**128,835**

(*a*) Includes fodder and fallow land.

Water supply schemes

Adelaide Metropolitan Water Supply. Adelaide derives its water from six reservoirs in the nearby Mount Lofty Ranges and by means of pumping stations and a pipeline from the Murray River at Mannum. The reservoirs have a storage capacity of 87,400 acre feet and the pipeline has a capacity of 88,000 acre feet a year.

To the north, the city of Elizabeth receives water from South Para Reservoir in the Barossa system and from the metropolitan storages. The consumption for the whole area for the year 1965–66 was 102,000 acre feet, equivalent to a consumption of 105 imperial gallons per head per day. The capital cost to 30 June 1966 was $103,532,180.

Country reticulated supplies. Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa and South Para Reservoirs (50,350 acre feet) in the Barossa Ranges. Supplies to these areas are supplemented by River Murray water delivered into Warren Reservoir through a branch from the Mannum–Adelaide pipeline. A pipeline to pump water from the River Murray at Swan Reach directly into the Warren Trunk Main at a point near Stockwell is at present under construction. Agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, and the Morgan–Whyalla Pipeline. The original 223-mile pipeline from Morgan to Whyalla and the completed sections of a second and larger pipeline currently being constructed are at present able to carry 25,000 acre feet of water a year from the River Murray. The ultimate designed capacity of the two pipelines is 61,000 acre feet per year. A large part of Eyre Peninsula is supplied, through the 240-mile Tod River Main and the 104-mile East Coast Main, with water from the Tod River Reservoir (9,160 acre feet), the sand beds of the Uley-Wanilla Basin, the Lincoln Basin, and Polda Basin. Along the Murray River all towns are supplied from the river. Water from the river is also reticulated through adjacent farmlands for up to 30 miles. Surface and underground resources have been developed to supply most rural centres not covered by the larger schemes. Water conservation and distribution works in country districts to 30 June 1966 have cost $118,387,127 (exclusive of river control and irrigation works on the Murray River) and contain 7,983 miles of water mains.

Underground water

Underground water supplies in South Australia are under the control of the Department of Mines, which administers the Underground Water Preservation Act, 1959–1966. This Act provides for the control of artesian flows and the conservation of fresh water aquifers, and empowers the Minister to restrict the discharge of underground waters and the drilling of new bore holes in defined areas, if necessary, to prevent contamination or undue depletion of the underground water in such areas.

Surveys of groundwater resources are undertaken continually by geologists of the Department of Mines, the results being published in various bulletins and reports. The *Groundwater Handbook* published in 1959 by the Department provides a comprehensive and detailed review of the State's underground water resources.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are high in proportion to the carrying capacity of the arid land. Deep boreholes have been drilled by the Department of Mines to provide water along stock routes, and pressure waters have been developed around the basin margin. These waters occur at comparatively shallow depth, as at Marree township, where the artesian bore is 575 feet. In addition to pressure waters, the non-pressure aquifers of the subsidiary basins provide pastoralists with stock water supplies which can be readily and economically developed.

Use of the waters of the Murray Basin is essential to settlement in the Murray-Mallee country and in the south-east of the State, especially for farms and township supplies. Mount Gambier draws its water supply from the Blue Lake, which is fed from the Basin. Water supplies of a number of towns are obtained from bores in the Basin. The deepest bore drilled so far is Geltwood No. 1 Stratigraphic Bore, being 12,301 feet deep. In the Kingston-Millicent area about 100 boreholes tap an artesian aquifer, and development of this aquifer is increasing. Supplies of up to 50,000 gallons per hour for flood irrigation are being obtained.

On Eyre Peninsula the Uley Basin has been in use as a source of groundwater since 1948. The water level had dropped below the critical point and no groundwater was taken from this Basin from 1963 to 1965, but pumping was re-commenced in 1966. The Lincoln Basin is now fully developed, yielding up to 20 million gallons a week, and since 1960 providing the water supply for the town of Port Lincoln. The Polda Basin near the township of Lock was brought into operation late in 1962. The present pumping plant has a capacity of 7 million gallons per week. The water is reticulated to townships and farming properties on the Upper Eyre Peninsula. Investigations in the Basin are complete and the yield recommended is 20,000 gallons per hour from each large diameter borehole Investigations are currently proceeding for further development of basins in the County Musgrave which is west of the Polda Basin. Investigations in South Uley Basin are completed and a yield of 100,000 gallons per hour has been proved from one single bore.

Pastoralists, farmers, market gardeners, and others have been assisted with advice on drilling, and the Department of Mines maintains and operates 22 drilling plants, which to date have developed an underground water supply potential in excess of 150 million gallons a day throughout the State. The whole of the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne, and considerable tracts of previously undeveloped country in the upper south-east Yorke Peninsula have been found to have usable water and have been opened up.

Farm water schemes

The Department of Mines gives assistance to individual farmers in the provision of supplies from underground sources, and the Department of Agriculture provides an advisory service on water conservation and irrigation designs, on farms, and on the use and suitability of underground water for irrigation and stock purposes. In addition, a great part of the farming areas is supplied with water under pressure from the extensive distribution systems connected to various reservoirs and the Murray River.

South-eastern drainage

In the south-east of South Australia it has been necessary to construct drainage schemes to dispose of surplus water from areas where a series of valleys or flats is separated by low ranges, parallel to the coastline, which prevent natural drainage. The Millicent Drainage System, completed in 1885, reclaimed 100,000 acres. The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the Government at national cost, plus those undertaken by the Government in co-operation with the landholders. The area is bounded on the east by the State boundary, and on the west by the sea coast. It extends from about 55 miles north of Kingston, southerly to near Millicent and Kalangadoo. Up to 1948 about 430 miles of drains had been provided at a cost of $1,441,752. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948 the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, which involved the excavation of 8,100,000 cubic yards and the provision of 343 miles of new or enlarged drains, has been completed. Work is in progress on the northern section of 140,000 acres, where 85 miles of drains, involving the excavation of 2,989,880 cubic yards of material, have been completed. In addition, work is in hand for the drainage of 727,000 acres of land in the Eastern Division of the south-east, situated east of Bakers Range, and extending from near Kalangadoo to north of Naracoorte. Part of the first stage of this work provided for the construction of a main diversion drain (consisting of the enlargement of an existing drain for a distance of 24 miles and the excavation of 21 miles of new drain) from Beachport to Struan. The work to date has required the excavation of 6,074,830 cubic yards of material; the total length of the diversion drain is 45 miles. Work is proceeding on the internal drainage of the area, and 33,240 cubic yards of excavation have been carried out over a length of 4 miles of partially completed drains. The capital cost of drainage in the South-Eastern Drainage Area System to 30 June 1966 was $16,489,400, and the length of drains constructed was 824 miles. An extensive system of private drains (many of which are connected to the drains constructed under Government authority) also exists in the south-east of the State.

Murray River Irrigation District

Excess waters from the irrigation of orchards in the Murray River Irrigation Districts are building up a perched water table, which is rising to the levels of the tree root system. Investigations have proved that adequate drainage can be obtained in the underlying limestone aquifer. The building up of groundwater pressures due to drainage in these aquifers is being studied, as the outflow of saline waters into the Murray River surface waters must be prevented.

Western Australia

Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Year Book No. 37. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Administration

The Minister for Water Supply, Sewerage and Drainage administers the departmental irrigation schemes under the *Rights in Water and Irrigation Act, 1914-1964*. He is advised by an Irrigation Commission representing the local irrigationists and governmental, technical and financial branches. The Minister for Works administers, under the *Country Areas Water Supply Act, 1947–1964*, the water supplies to 216 towns and 4,200,000 acres of reticulated farmland, and also controls minor non-revenue producing supplies to stock routes and a few mines and agricultural areas with their associated communities. Five town supplies are administered by local boards under the *Water Boards Act, 1904–1964*, which provides a large degree of autonomy with ultimate Ministerial control.

Irrigation

Irrigation schemes have been established by the Government on the coastal plain south of Perth in the Waroona, Harvey and Collie River Irrigation Districts between Waroona and Dardanup, the water being channelled from dams in the adjacent Darling Range.

Logue Brook Dam with a capacity of 19,717 acre feet, Harvey Weir (6,495 acre feet) and Stirling Dam (46,191 acre feet) supply the Harvey Irrigation District, the rated area of which is 13,290 acres. The Harvey District links up with the Waroona Irrigation District, which is served by Waroona Dam (12,105 acre feet), Drakes Brook Dam (1,855 acre feet) and Samson Brook Dam (7,437 acre feet) and comprises a rated area of 3,060 acres. Wellington Dam on the Collie River with a capacity of 150,107 acre feet serves an area of 10,870 rated acres in the Collie River Irrigation District.

During the past thirty years a centre of tropical agriculture has been developed at Carnarvon, near the mouth of the Gascoyne River. Private pumping from sands of the Gascoyne River is the principal source of irrigation water for the 158 plantations. Because of the high risk of drawing in surrounding saline ground waters by over-pumping, the usage of water by the planters is controlled strictly by the Government. The Government is developing up-river sources and delivers water by pipeline to 23 plantations in the district. Bananas for the Perth market and fruit and vegetables for the Perth and Adelaide markets are the principal crops. A tropical research station is maintained at Carnarvon by the Department of Agriculture.

A project has been embarked upon to provide water supplies for irrigation in the area traversed by the Ord River in the Kimberley Division. The project provides for the eventual development of an area of 175,000 acres of land agriculturally and topographically suitable for irrigation, and comprises four stages. The first stage is now complete with 30,000 acres of the district supplied from the Diversion Dam which holds 80,000 acre feet of water. Thirty farms averaging 660 acres each have been developed for cotton growing in addition to the original 2,400-acre pilot farm. The remaining stages envisage the construction of an earth and rock fill structure storing 3.5 million acre feet of water (equivalent to more than 950,000 million gallons), a distribution irrigation network to serve a further area of 140,000 acres, approximately one-third of which is located in the Northern Territory, and the construction of a hydro-electric power station at the site of the Main Dam.

On the Liveringa flood plain, water is diverted from the Fitzroy River through Uralla Creek to a natural storage of about 1,200 acre feet, which, together with a dam on Uralla Creek (4,600 acre feet), provides for irrigation at Camballin sixty-five miles south-east of Derby. Irrigated crops of rice and sorghum are grown in the area.

AREA OF LAND IRRIGATED: WESTERN AUSTRALIA, 1961-62 TO 1965-66

(Acres)

Season	Vegetables	Fruit	Vineyards	Cotton	Other crops (*a*)	Pastures	Total
1961–62 . .	9,596	8,840	972	(*b*)	4,235	25,036	48,679
1962–63 . .	9,375	9,588	924	(*b*)	4,447	27,167	51,501
1963–64 . .	9,166	10,425	966	1,526	6,153	26,958	55,194
1964–65 . .	9,379	11,710	1,081	5,496	5,259	30,110	63,035
1965–66 . .	9,944	11,566	844	8,307	6,707	30,039	67,407

(*a*) Includes fodder crops. (*b*) Not available for publication, included with Other crops.

Country water supplies controlled by Department of Public Works and Water Supply

Since 1947 enlargement and extensions of the Goldfields and Agriculture Water Supply and the development of the Great Southern Towns Water Supply have been carried out, mainly in accordance with a project known as the Modified Comprehensive Scheme. Under this scheme water has been supplied to towns and farms in an area of 4.1 million acres in mixed farming (cereal and sheep) districts of Western Australia. The modified scheme was completed in 1961 at a cost of $20.6 million, of which the Commonwealth contributed $10 million under the *Western Australia Grant* (*Water Supply*) *Act* 1948. A further request was made by the State Government in 1963 for a grant of $10.5 million representing half the estimated cost of proposed extensions which would increase by 3.7 million acres the area served by the scheme. The Commonwealth agreed to provide assistance in the form of an interest-bearing loan up to a maximum of the amount requested, advances to be made during a period of eight years commencing 1965–66. Legislative authority for the loan is given by the *Western Australia* (*South-west Region Water Supplies*) *Agreement Act* 1965.

Mundaring Reservoir on the Helena River, twenty-six miles from Perth, is the source of water supplied to the Eastern Goldfields. It has a capacity of 62,435 acre feet and is connected to Kalgoorlie by a pipeline with extensions to towns and agricultural areas. At 30 June 1966 the Goldfields and Agricultural Water Supply was serving 96 towns, and water was being reticulated to farms in an area of 4.2 million acres. The total length of pipelines was 3,992 miles and the number of services was 25,094. Consumption during 1965–66, including supplies drawn from local schemes and from the Metropolitan Water Supply, was 2,602 million gallons.

The Great Southern Towns Water Supply pipes water from Wellington Dam to towns on the Great Southern Railway from Brookton to Katanning as well as a number of other towns. At 30 June 1966 the Supply was serving 23 towns, the total length of pipelines was 450 miles, and the number of services was 7,958. Consumption during 1965–66, including supplies drawn from local sources, was 611 million gallons.

Ninety-one local schemes supply water from stream flow, dams, tanks, wells, and bores, mainly to country towns. At 30 June 1966 the total length of water mains was 796 miles and the number of services was 22,389. During 1965–66 consumption was 1,689 million gallons.

Other country water supplies

As well as the schemes controlled by the Department of Public Works and Water Supply, there are five local Water Boards which also draw supplies from stream flow, dams, tanks, wells, and bores. In addition, some local authorities supply water within their boundaries. The Forests Department and sawmilling companies operate schemes to supply water to their mill towns. Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the railways from other sources, such as those controlled by the Department of Public Works and Water Supply and the Metropolitan Water Supply, Sewerage and Drainage Board.

Underground water

Considerable use is made of underground water by individual farmers, pastoralists, market gardeners, etc., and it is estimated that over 50,000 bores are in use in the State. The quality of the water varies from place to place and much of it is too saline for irrigation or even stock. However, artesian aquifers are tapped to supply or augment the town supplies of Perth, Bunbury, Busselton, Eaton, and Denham, and non-pressure water is used in the public supplies of 37 other towns.

Considerable advances in the knowledge of aquifers and quality of water in the main sedimentary basins have been made as a result of extensive geological surveys by oil exploration companies and exploratory drilling by the Mines Department.

The Public Works Department and the Metropolitan Water Board are responsible for development work. The Geological Survey is responsible for all exploratory works, as well as for investigating and assessing the State's groundwater resources, advising local Government authorities, private industry and individuals on groundwater problems, and supervising departmental drilling.

Groundwater exploration projects are in progress or have recently been completed for the towns of Port Hedland, Exmouth, Geraldton, Morawa, Jurien Bay, Yunderup, Mandurah, Albany, Esperance, and additional supplies have been located for the Perth metropolitan area. A long-term systematic exploratory drilling programme in the Perth Basin is continuing.

Tasmania

Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Year Book No. 37. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Main purposes of water conservation and utilisation

Because of the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are permanently flowing. The only large scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately sized dams built by mining and industrial interests and by municipal authorities for town water supplies. 'Run of the river' schemes are quite adequate for assured supply in many municipalities.

Until a few years ago irrigated areas were negligible except for long established hop fields, but there is a rapidly expanding use of spray irrigation on orchards, pastures, potatoes, and beans. Until recent years there has been almost complete dependence on natural stream flows, but the need for some regulating storages has become apparent. Increasingly, farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water suitable for stock, minor irrigation works and limited domestic use is exploited in the consolidated rocks of south-east, midlands and north-western Tasmania. In the midlands and south-east of the State nearly all groundwater is recovered from Permian and Triassic rocks. In the north-west, water is recovered from a variety of rocks ranging from Precambrian dolomites, quartzites and schists to Tertiary basalt. The Precambrian rocks are the highest yielding consolidated rocks. At the present time more drilling is being undertaken in the basalts, which have been shown to be reliable aquifers yielding good quality water.

Much water is also obtained in the unconsolidated Tertiary sediments of the central north. These sediments, which are dominantly clay, yield fairly saline water. Water is thought to be contained in hair-line shrinkage fractures in weathered clays. At present a drilling programme is continuing to assess the stratigraphy and reserves of the basins. Gravel zones between basalt flows in the north-west yield up to 5,000 gallons per hour. On King and Flinders Islands water of variable quality suitable for stock and limited domestic use is obtained from aeolian sands. The township of Currie on King Island obtains up to 200,000 gallons a day for domestic use from this source.

Underground water investigations and most of the water boring in Tasmania are carried out by the Mines Department. Groundwater projects have been recently completed in the Cygnet district, and work is in progress in the Longford basin and the Cole and Jordan River basins.

Administration

In 1962 a new authority, the Metropolitan Water Board, assumed overall control of water supplies to the cities of Hobart and Glenorchy and the municipalities of Kingborough and Clarence, all of which, however, retain primary responsibility for reticulation. The authority is also vested with control of a regional scheme serving other southern municipalities. Water supplies to other areas are primarily the responsibility of local councils, subject to approval of plans and finance by the Rivers and Water Supply Commission.

While the Commission does not own the waters of streams and lakes, it is empowered to take them, or issue licences, subject to pre-existing statute and common law rights. These include water reserved for specific industries, municipal requirements, and ordinary riparian rights. The Commission is also concerned with drainage trusts' operations, river improvement, including repairs after flood damage, and stream gauging.

Regional water schemes

Four regional water schemes are in operation. The first draws water from the east bank of the River Derwent at Lawitta to provide domestic and industrial supplies in five southern municipalities, and the second, which increases existing supplies to Hobart and suburbs, pumps water from the west bank of the River Derwent at Lawitta. These two schemes are controlled by the Metropolitan Water Board. In addition, the State Government has constructed two other regional water schemes; the first, to serve the aluminium refinery at Bell Bay on the eastern bank of the River Tamar and to supply bulk water to several municipalities; the second, to supply water along the western bank of the Tamar. The two northern schemes are the responsibility of the Rivers and Water Supply Commission.

Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey, and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. The State's largest rivers discharge in the west, but diversion to the eastern half of the watersheds is not regarded as practicable.

Industrial water schemes

Three principal industrial water schemes have been installed privately—for a paper mill near Lawitta on the Derwent River, for a paper mill at Burnie using water from the Emu River, and for a factory at Heybridge reticulating water from Chasm Creek. The State Government has constructed some water schemes for use primarily for industrial purposes. These include the scheme serving the aluminium refinery at Bell Bay referred to above, a storage supplementing the summer flows of the Kermandie River for use by a wood-pulping plant at Geeveston, and the recently completed Prosser River Scheme which supplies water to a sodium alginate industry at Louisville near Orford and supplements the water supply of the township of Orford.

Irrigation

There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing a scheme near Cressy. The *Water Act* 1957 provides for irrigation works to be undertaken by municipalities and by trusts constituted for the purpose, but no such works have been undertaken to date. With the exception of the Lawrenny estate at Ouse, which is the largest single area under irrigation in the State, and also the only formally constituted irrigation district, there are no extensive schemes utilising one common source of water supply in Tasmania. The larger proportion of the area under irrigation is watered by pumping systems.

Details of the areas of crops and pastures irrigated in Tasmania in the seasons 1961–62 to 1965–66 are shown in the following table.

AREA OF LAND IRRIGATED: TASMANIA, 1961-62 TO 1965-66

(Acres)

Season	Vegetables	Fruit	Hops	Other crops(*a*)	Pastures	Total
1961–62 . . .	3,388	3,930	1,447	2,711	11,713	23,189
1962–63 . . .	4,100	4,446	1,465	2,839	11,435	24,285
1963–64 . . .	6,319	5,933	1,463	4,162	15,693	33,570
1964–65 . . .	8,302	5,955	1,553	4,318	14,194	34,322
1965–66 . . .	12,994	7,241	1,524	5,786	17,651	45,196

(*a*) Includes fodder and fallow land.

Northern Territory

Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Year Book No. 37, and in this issue information on climatic conditions will be found in the chapter Physical Geography and Meteorology, and a brief outline of contour and physical characteristics in the chapter The Territories of Australia.

Administration

Under the *Control of Waters Ordinance* 1938–1962 of the Northern Territory natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and the diversion of water is prohibited except under prescribed conditions. There is a Water Resources Branch of the Northern Territory Administration under the control of a Director. The functions of the branch include systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies, and flood prevention and control.

Under the *Water Supplies Development Ordinance* 1960–1963 the Water Resources Branch gives financial assistance to landholders for the development and improvement of water supplies on agricultural and pastoral leases. Another function of the branch, which is increasing in importance as it builds up a body of technical data and information about the Territory's water resources, is the dissemination of this knowledge by the provision of advice and technical assistance to professional drillers and to landholders.

Underground water

The marked seasonal rainfall over the whole of the Northern Territory is one of the basic factors affecting the pastoral industry, which provides a large proportion of the Territory's income. Underground water supplies are of great importance in the Territory, where most of the cattle numbers are dependent on underground supplies for three to five months each year, because of the inadequacy of surface water during the dry season.

Rainfall is one of the factors controlling cattle numbers, but geological features, controlling both soils and the storage of underground water, are equally important. In the northern-most portion of the Territory, which receives from 25 to 60 inches of seasonal rainfall a year, surface water supplies are, in general, adequate for the pastoral industry. Despite this, however, the area has a comparatively low carrying capacity for cattle, and the pastoral industry is concentrated more in inland areas where feed retains more nutritive value in winter, despite dry conditions. South from this well-watered northern-most portion, the Territory becomes progressively drier, with an average annual rainfall of only five inches at the margins of the Simpson Desert in the south-east corner. In the lower rainfall areas the search for potable underground water becomes exacting, but in the Ord-Victoria region and the Barkly Tablelands the best pastures are generally in areas where sub-surface conditions are suitable for the storage of underground water.

In the Ord-Victoria region the best grass lands overlie volcanic rocks and extend over some 10,000 square miles. Outcrops of sandstone, limestone and shale also occur in this area and underlie the volcanic rocks in most places. In general, these sedimentary rocks dip gently to the east, and sub-artesian conditions prevail. Underground water in this region is obtained from sandstone aquifers which yield supplies ranging up to 4,000 gallons an hour. Most of the bores are required in areas where the sediments are overlain by basalts; selection of bore sites is usually difficult. Supplies of shallow groundwater from joints, cracks and faults in the basalt are insignificant, and virtually all the bores obtain water from the sub-basalt sandstone aquifers. Successful bores in this area have ranged in depth from 200 feet to more than 900 feet. There are also small basins of younger sedimentary rocks in the region, some of which yield sub-artesian, and in places artesian, water and provide areas of good pastures.

The Barkly Tablelands, which extend into Western Queensland, overlie flat-lying limestone. sandstone and shale of the Barkly Basin. In most places underground water is under pressure but no flowing bores are known. Sandstones and beds of limestone with fractures and solution cavities provide a number of aquifers within the Basin. The hydraulic surface (to which pressure water will rise in bores) ranges between 500 and 600 feet above sea level, and adequate supplies for the watering of stock are available at depths ranging from 150 to 400 feet from the surface. The water from over 90 per cent of the bores is suitable for stock and over 50 per cent of it is suitable for human consumption. Investigations by the Commonwealth Bureau of Mineral Resources, Geology and Geophysics indicate that underground water supplies will be more than sufficient for the future development of the pastoral industry on the Tablelands.

In the Alice Springs district valuable pastures occur on a great variety of rock types, and from some of these very little underground water is available. Many shallow bores obtain water from alluvium near stream channels. There are also many successful bores in porous sands and limestone in Mesozoic and Cainozoic sedimentary basins and in some Upper Proterozoic and Palaeozoic limestones and sandstones. Small supplies of underground water are obtained from bores intersecting joint zones in metamorphic rocks and granite of Archaean age. However, except in areas close to recharge, the water quality varies from moderate to poor.

The Water Resources Branch of the Northern Territory Administration has intensified research aimed at increasing the water supplies for Alice Springs and Darwin. Bores into the Palaeozoic Mereenie sandstone, twelve miles south of Alice Springs, have intersected sub-artesian aquifers at depths between 500 and 1,000 feet, and water from these bores is now the main source for the town supply. High-yielding dolomite aquifers of Lower Proterozoic age in the area sixteen miles south of Darwin have been developed and are augmenting the Darwin water supply. Tennant Creek now has a water supply pumped from Cabbage Gum Basin, a small basin of alluvium and deeply weathered Precambrian rocks nine miles south of the town. A continuous check on the hydrological results of such pumping is maintained in order to adjust future yields from the basin. A recent investigation has revealed large quantities of potable underground water in the Kelly Well Basin five miles south of the Cabbage Gum Basin. Two production bores are being constructed so that the water from the Kelly Well Basin can be used to augment the Tennant Creek town supply.

At 30 June 1966, 5,346 bores and wells were registered in the Territory. Of these, 3,501 were for pastoral use, 304 were for agricultural use, 360 served town and domestic water supplies, 33 were in use on mining fields, 545 were investigation bores, 394 were Government established stock route bores, and 209 were classified under other uses. These include successful bores which have collapsed, and bores which were unsuccessful owing to drilling difficulties, or to insufficient quantity or poor quality of underground water.

Irrigation

There are no large water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between the Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for additional water to augment Darwin's water supply are proceeding on the Darwin River, at Berry Springs, and in the McMinns Lagoon area. In the McMinns area a production bore has been drilled and is expected to yield one million gallons per day. This bore will be connected to the rising main from Manton Dam.

Hydrological investigations are being carried out by the Water Resources Branch to determine the available water and the best method of control and use in the potential irrigation areas of the Northern Territory. Since the start of stream gauging activity in the Northern Territory the Water Resources Branch has established 221 gauging stations. As at 1 June 1966, the Northern Territory stream-gauging network comprised 168 operating stations; of these, 114 were base stations for measuring stream flow and 54 were supplementary stations.

Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River, and Alice Springs areas, with only small acreages being utilised. In the Territory 33 licences to divert water from streams have been issued. The total licensed area is 2,003 acres, but the actual area irrigated is less than this. There are also a number of farms irrigated from bore supplies, particularly in the Alice Springs area. Purposes for which irrigation water is used include the growing of fruit, vegetables, crops and pastures, and also dairying and mixed farming. Some 300 acres of irrigated rice were grown commercially on the Adelaide River in the 1964–65 season in a pilot farm project.

The Northern Territory Administration and the Commonwealth Scientific and Industrial Research Organization are investigating the potentialities of the Katherine area for agricultural production. In this area there are twelve licensed stream diversions covering an area of 220 acres, and investigations are continuing into the possibility of using the Adelaide and Daly Rivers for irrigation. A dam site is under investigation at Adelaide River Township. The Daly River appears promising for irrigation purposes as it has a minimum dry season flow of 275 cusecs and a reliable annual flow, without regulation, of 300,000 acre feet.

Papua and New Guinea

Rainfall in Papua and New Guinea varies considerably from approximately 250 inches near Lindenhafen (New Britain) and 230 inches at Kikori (Papua) to about 70 inches near Marienburg (New Guinea) and 40 inches at Port Moresby (Papua). For a general description of these territories *see* the chapter The Territories of Australia, of this Year Book. Irrigation has not been developed on any organised basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet, but complete data regarding water resources are not available. At 31 July 1966, 38 stream gauging stations were in operation, of which 24 are base stations regarded as part of the permanent network. It is planned to increase this number to 51 base stations. However, the difficulty of the terrain and the inaccessibility of some regions gives rise to considerable difficulties in the installation and operation of such stations. The available stream gauging records up to the end of 1964 are being prepared for publication, and it is intended that further publications will be issued at five-yearly intervals.

The largest rivers in the Territory include the Fly (700 miles long, situated in the western division of Papua), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles), and the Markham (110 miles). The main water conservation interest in New Guinea at present is the hydro-electric potential, which is extensive. An outline of schemes at present in operation is given in Chapter 28, Electric Power Generation and Distribution.

CHAPTER 24

FORESTRY

For further details on subjects dealt with in this chapter *see* the annual bulletins *Non-Rural Primary Industries*, *Value of Production*, and *Manufacturing Industry* (for sawmills, etc. operations).

Source of statistics

Statistics relating to forestry are, in general, provided by the various authorities concerned with forestry administration. Particulars of forest reservations contained in this chapter have been collected by the Statisticians of the various States, mainly from information provided by the State forestry authorities. Other information on forested areas, together with certain other data, has been provided by the Commonwealth Forestry and Timber Bureau. Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of gums, resins and tanning barks have been provided by the State forestry authorities. Data of imports and exports of forest products and timber and timber products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the statistics of overseas trade. The figures shown relate, in general, to years ended 30 June.

Forestry in Australia

Objects of forestry

The main object of forestry authorities is to manage the forests of the country in a manner that will provide the maximum benefits, both direct and indirect. Direct benefits include the provision of essential commercial commodities such as structural timber, pulpwood, plywood, veneers, firewood, bark products, tars, oil, and resins. Indirect benefits include protection of soil and stock from wind and exposure, regulation of stream flow, provision of recreational facilities, and aesthetic effects. Forestry also aims at improving existing forests and woodlands by properly controlled exploitation, by protection from such destructive agencies as fire and insect attack, and by inducing regeneration where it is desirable. The provision of a partial tree cover on denuded lands where this cover is necessary for protective purposes and a complete cover when the land is better under forest than under any other land use are further aims of forestry.

General account of forests and timbers

The area of land in Australia suitable for the production of commercial timber as a primary crop is very small in comparison with the size of the continent. Broadleaved forests (hardwoods) cover 97 per cent of the total forested area, and approximately 94 per cent of the broadleaved forests area is occupied by eucalypts.

Eucalypts. The genus *Eucalyptus* is remarkable in that it includes over 600 species, ranging in size from the mighty forest giants, mountain ash (*E. regnans*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia, down to the small mallee species which inhabit vast areas of the inland. The habitats range from the dry inland areas to the high mountain areas in the Australian Alps, from areas with the annual rainfall as low as 10 inches to those where it is 150 inches. Of the 600 species, only about 100 are used for sawmilling, and not more than 40 of these are exploited extensively.

The better class of eucalypt forest is concentrated mainly in the higher rainfall areas such as the east coast, the highlands of southern New South Wales, Victoria and Tasmania, and the south-western corner of Western Australia. The more important species include blackbutt (*E. pilularis*), tallowwood (*E. microcorys*), flooded gum (*E. grandis*), and red mahogany (*E. resinifera*) of New South Wales and Queensland; alpine ash (*E. delegatensis*) of New South Wales, Victoria and Tasmania; mountain ash (*E. regnans*), messmate (*E. obliqua*) and blue gum (*E. bicostata*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia. For height and grandeur, mountain ash and karri are unequalled among the broadleaved trees of the world and are excelled only by a few North American coniferous (softwood) species.

In the coastal regions with lower rainfall the eucalypt forests contain many durable species such as the ironbarks, grey gums and bloodwoods of the east coast, and jarrah (*E. marginata*) and tuart (*E. gomphocephala*) of Western Australia. The spotted gum (*E. maculata*) occurring in New South Wales and Queensland is another example.

Along most of the inland streams and adjacent flood-plains there are riverain forests consisting mainly of river red gum (*E. camaldulensis*), a very durable broadleaved tree which has supplied large quantities of sawn timber, railway sleepers and fence posts.

Eucalypts also occur in open forest and savannah woodland formations in areas receiving a reliable rainfall of about 10 to 20 inches per annum, as on the goldfields of Western Australia where salmon gum (*E. salmonophloia*), brown mallet (*E. astringens*) and wandoo (*E. wandoo*) occur. These forests are of considerable value for firewood, as mining timbers and for fencing. Minor forest products such as sandalwood, tan bark, essential oils, etc. also come from isolated areas in this type of country, and in the more arid areas.

In 1965–66 the volume of eucalypt timber sawn was 1,363 million super ft.

Other broadleaved timbers (*hardwoods*). Broadleaved genera other than *Eucalyptus* cover a comparatively small portion of the forested land in Australia (some 6 per cent), but these areas provide a great variety of timbers suitable for a multitude of uses. There are two basic types of forest containing supplies of broadleaved timbers other than eucalypts, namely, the tropical and sub-tropical rainforests of coastal New South Wales and Queensland and the temperate rainforests of southern Victoria and Tasmania, both of which yield species known collectively as rainforest or brushwood species. The total volume of brushwood species produced in 1965–66 was estimated at 75 million super ft, i.e. less than 7 per cent of the total broadleaved timber cut in Australia.

The tropical and sub-tropical rainforest along the eastern coast of Australia contains a large number of different species. Tropical rainforest occurs in northern Queensland in the vicinity of Cairns and on the Atherton Tableland, providing such well-known cabinet woods as Queensland maple (*Flindersia brayleana*), Queensland walnut (*Endiandra palmerstonii*) and the silky oaks. The sub-tropical rainforest found in southern Queensland and northern New South Wales yields the tulip oak, crab apple (*Shizomeria ovata*) and white beech (*Gmelina leichhardtii*). Coachwood (*Ceratopetalum apetalum*) and sassafras (*Doryphora sassafras*) occur in regions to the south near Dorrigo and have yielded valuable timber for many years.

Turpentine (*Syncarpia glomulifera*), an excellent harbour pile timber resistant to marine borer attack, and brush box (*Tristania conferta*), a superior structural and decking timber, are found in association with some eucalypts in the wetter rainfall areas on the north coast of New South Wales and in southern Queensland.

Temperate rainforest which is to be seen in southern parts of Victoria and western Tasmania consists of myrtle beech (*Nothofagus cunninghamii*), but produces also southern sassafras (*Atherosperma moschata*) and blackwood (*Acacia melanoxylon*).

Conifers (*softwoods*). One of the most important species of native conifers is white cypress pine (*Callitris hugelii*). The main cypress pine forests of commercial value occur in New South Wales and southern Queensland west of the Great Dividing Range. The trees are comparatively small, but the timber has particular value owing to its durability and resistance to termites. It is suitable for use as scantlings, flooring, linings, weatherboards, poles, and posts. As much of the area originally covered by cypress pine has been cleared for wheat farming and grazing, the production from the remaining State forests is now strictly regulated to ensure a continuous supply. The volume of cypress pine cut in 1965–66 was approximately 64.5 million super ft.

Another important native conifer is hoop pine (*Araucaria cunninghamii*), which occurs naturally in the sub-tropical rainforest of southern Queensland and northern New South Wales associated with tulip oak, crab apple, white beech, coachwood, and sassafras. The greater part of the original hoop pine forests has been exploited, but considerable areas have been replanted to this species in Queensland and, to a lesser extent, in New South Wales.

Other native conifers which have played a useful but minor part in the Australian timber industry include bunya and kauri pines (*Araucaria bidwillii* and *Agathis palmerstonii*) of Queensland and celery top, Huon and King William pines (*Phyllocladus asplenifolius*, *Dacrydium franklinii* and *Athrotaxis selaginoides*) of Tasmania. Kauri pine is found in the tropical rainforest of northern Queensland in association with non-eucalypt broadleaved trees, while bunya pine occurs in the sub-tropical rainforests. In the temperate rainforests of Tasmania celery-top, Huon and King William pines are found in association with myrtle beech, southern sassafras and blackwood.

Extent of forested areas

Estimates prepared for the Eighth British Commonwealth Forestry Conference held in Kenya in 1962 show the total area of forest in Australia as 512.2 million acres, or about 27 per cent of the total land area of the continent. In making these estimates the Food and Agriculture Organization definition of 'forest' (published in *World Forest Inventory*, 1958, page 123) was used. This definition includes areas of sparse or stunted tree growth, and in the case of Australia some four-fifths of the total forest area falls into this category.

CLASSIFICATION OF FOREST AREA(*a*): AUSTRALIA

(*Source:* Forestry and Timber Bureau)

('000 acres)

Type of forest	Area
LANDS	
Accessible forests—	
Productive forests in use—	
Coniferous (softwood)	492
Non-coniferous (broadleaved)	24,352
Mixed woods	5,636
Open areas	245
Total, productive forests in use	30,725
Productive forests not in use	(*b*) 31,961
Unproductive accessible forests	(*c*) 257,687
Total, accessible forests	*320,373*
Inaccessible forests	191,795
Total, forested area	**512,168**
OWNERSHIP OF ACCESSIBLE FORESTS	
Publicly-owned forests—	
State forests	23,534
Other forests	150,329
Total, publicly-owned forests	*173,863*
Privately-owned forests	145,537
Ownership not yet determined	973
Total, accessible forests	**320,373**

(*a*) Based on the 1960 classification of forests. (*b*) Includes approximately 25 million acres capable of producing fuelwood only. (*c*) This area carries only sparse, stunted trees.

Forest reserves

The distribution of forest reserves is shown by States in the following table. Detailed comparisons between States are not possible because of the lack of uniform definitions.

LEGALLY ESTABLISHED PERMANENT FOREST RESERVES: STATES AND TERRITORIES, 31 MARCH 1966

(*Source:* Forestry and Timber Bureau)

('000 acres)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Production reserves(*a*)—									
Productive	5,000	4,108	8,549	286	4,083	1,917	11	27	23,981
Unproductive	3,020	1,382	..	..	..	1,341	..	..	5,743
Unstocked	..	114	..	..	708	48	..	20	890
Total, production reserves.	*8,020*	*5,604*	*8,549*	*286*	*4,791*	*3,306*	*11*	*47*	*30,614*
Protection reserves(*b*)—									
Productive	..	..	..	..	36	..	..	13	49
Unproductive	1,870	(*c*) 500	(*d*)1,049	663	..	233	..	97	4,412
Unstocked	..	..	..	..	25	1	..	..	26
Total, protection reserves .	*1,870*	*500*	*1,049*	*663*	*61*	*234*	..	*110*	*4,487*
All other reserves—									
Productive	..	151	..	..	..	..	2,394	..	2,545
Unproductive and unstocked		..							
Total, all other reserves .	..	*151*	..	..	..	..	*2,394*	..	*2,545*
Total area, all reserves .	9,890	6,255	9,598	949	4,852	3,540	2,405	157	37,646

(*a*) Forest lands reserved by law for the production of logs, pulpwood, pit props, poles, posts, and fuelwood for commercial purposes. (*b*) Reserved lands, the management of which is principally aimed at the protection of natural resources, of fauna and flora, or at other purposes not directly related to the production of wood (e.g. parks, watersheds, soil conservation, etc.). Industrial cutting may or may not be allowed in these protection reserves. (*c*) No cutting allowed. (*d*) Includes national parks, 30,000 acres and watersheds 370,000 acres.

A considerable proportion of the permanently reserved areas is in inaccessible mountainous country, and many of the forests contain a mixture of species, only some of which are at present of commercial value. Much of the area consists of inferior forest, and a large proportion of the whole has been seriously degraded by recurrent fires.

Plantations

The indigenous forest of Australia does not contain adequate supplies of coniferous timber, and Australia's requirements have had to be met largely by imports. As a result of the planned policy of the forest services and of several private commercial organisations, the area of coniferous plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a larger area of planted conifers than any other State in Australia, and for some years has been exploiting considerable quantities of timber from these plantations. Production is also increasing in the other States, and the thinnings from their plantations are already supplying a significant volume of timber.

The total production of roundwood from Australia's coniferous plantations is now more than 70 million cubic feet per annum and is expected to increase substantially during the next decade.

A special article prepared by the Forestry and Timber Bureau giving a detailed account of the history and development of coniferous plantations and of the characteristics of individual species is included in Year Book No. 44, page 975.

Broadleaved plantations (mainly *Eucalyptus spp.*) comprise a much smaller area, and the total acreage at 31 March 1966 was 35,000 acres, about two-thirds of which was mallet. Plantations of this species have been established in Western Australia for tan bark production.

AREA OF CONIFEROUS AND BROADLEAVED PLANTATIONS: STATES AND TERRITORIES, 31 MARCH 1966

(*Source:* Forestry and Timber Bureau)

(Acres)

State or Territory	Coniferous							Broad-leaved
	Government			Private			Total	
	Pinus radiata	Other species	Total	Pinus radiata	Other species	Total		
New South Wales	91,818	17,393	109,211	(*a*) 4,350	(*a*)17.650	(*a*)22,000	131,211	(*a*) 1,200
Victoria	54,973	10,314	65,287	80,580	1,211	81,791	147,078	5,246
Queensland	2,736	113,286	116,022	830	17,250	18,080	134,102	4,935
South Australia	126,842	12,295	139.137	42,186	..	42,186	181,323	3,484
Western Australia	17,666	27,127	44,793	1,584	165	1,749	46,542	19,111
Tasmania	23,206	433	23,639	9,541	2	9,543	33,182	863
Northern Territory	..	849	849	..	50	50	899	103
Australian Capital Territory	24,894	2,446	27,340	..	..	..	27,340	..
Australia	**342,135**	**184,143**	**526,278**	**139,071**	**36,328**	**175,399**	**701,677**	**34,942**

(*a*) Estimated.

Forest administration and research

Commonwealth Forestry and Timber Bureau. The functions of the Commonwealth Forestry and Timber Bureau are laid down in the *Forestry and Timber Bureau Act* 1930–1953 and include forestry research and education, the study of timber supply, and advice to the Government on forestry matters. The administering department is the Department of National Development.

In 1961 the Commonwealth Government decided to expand its activities in forestry research in Australia. The existing Forestry and Timber Bureau Divisions of Silvicultural Research and Forest Management Research were combined to form the Forest Research Institute as a separate branch of the Bureau. The purpose of the Institute is to provide complete coverage in forestry research, ensuring that all problems of primary importance to the practice and development of forestry in Australia are investigated. In developing a programme with this objective, the Institute takes account of the research activities and potential of the State forest services and other organisations. The research work carried out by the existing sections of the Forest Research Institute covers a wide range of studies, including the following: factors affecting tree growth, tree breeding, introduction of exotic species, forest nutrition, forest botany, forest entomology and pathology, fire protection, watershed management, forest mensuration, forest management and management economics, aerial inventory, biometrics, and tree seed. The Forest Research Institute maintains six regional establishments in the Commonwealth, two of which have an outstation in addition to the regional headquarters. These regional stations are run on a co-operative basis with State forest services and private forest companies or other government instrumentalities.

The Forestry and Timber Bureau also maintains a Timber Supply Economics Branch concerned with the compilation and analysis of statistics of production, consumption and trade in timber and other forest products. This Branch also carries out studies in forest economics and research into logging methods and machines. Advice on timber supply matters is currently made available to government departments and private enterprise. Research is also undertaken on matters associated with the marketing of timber products.

Commonwealth Scientific and Industrial Research Organization, Division of Forest Products. The Division of Forest Products was formed in 1928 to carry out investigations into Australian forest products, assist in the effective use of such products, reduce waste, reduce losses from decay and insect attack, and conduct research into the fundamental chemical, physical and mechanical properties of Australian timbers.

The research work of the Division is carried out by eight separate sections: wood and fibre structure, wood chemistry, timber physics, timber mechanics, timber preservation, timber seasoning, plywood and glueing, and timber utilisation. In addition, the Division provides assistance to individuals and local industry, administers courses of instruction on timber properties and usage, and maintains co-operative projects with several overseas authorities operating in the same field.

Forestry in the Territories. Forestry activities in the Territory of Papua and New Guinea are controlled by the Administration through its Department of Forests. The management of forests in the Australian Capital Territory is the responsibility of the Forestry Section of the Department of the Interior.

The Forestry and Timber Bureau advises the Administrations of the Australian external Territories on the management of the forests in those Territories, while the Northern Regional Station of the Forest Research Institute advises the Northern Territory Administration on forestry matters affecting the Northern Territory.

Forestry activities of the States. Forestry on State-owned lands in the various States is the responsibility of the respective State Governments, but they do not exercise any control over forestry activities on private property. The powers and functions of State forest authorities are laid down under forest Acts and Regulations. In each State there is a department or commission to control and manage State forests. Its functions include the introduction of proper measures for the control and management of forest land; the protection of forest land; the conversion, marketing and economic utilisation of forest products; the securing of an adequate and permanent reservation of State forests; and the establishment and maintenance of coniferous forests to remedy the existing deficiency of conifers in Australia. All State forest services are actively engaged on research programmes. Annual reports are issued by each State forest authority.

In addition to developing permanent forest reserves in each State, foresters are surveying all forested Crown lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release for other uses areas unsuitable for forestry. State forest authorities control over 10 million acres of timber reserves, national parks, etc. They also usually control all timber on unoccupied Crown lands.

Private forestry. Privately owned lands contribute considerably to the total production from Australian forests. The most important areas of managed native forest in private ownership are the forests owned by pulp and paper companies. Schemes of financial assistance to individual land owners—designed primarily to encourage establishment and management of coniferous plantations—have been recently introduced by the Governments of New South Wales and Victoria.

The area of privately owned coniferous plantations is rapidly increasing, and here again the pulp and paper companies are very active. In step with the increase in afforestation programmes, the number of professional foresters employed in private forestry enterprise is increasing, while several are engaged on research.

An estimate of the area of coniferous plantations established by private companies and individuals is included in the table on page 1033.

Forestry education

The functions of the Australian Forestry School at Canberra, previously a division of the Forestry and Timber Bureau, were taken over by the Australian National University at the beginning of the 1965 academic year. The school was absorbed into the University's School of General Studies as the Department of Forestry. This department provides a full four-year training leading to the degree of B.Sc. in forestry. The University of Melbourne also maintains a School of Forestry which gives training leading to a B.Sc. degree in forestry. The universities in all States provide facilities for post-graduate studies in forestry leading to higher degrees.

The Victorian Forests Commission maintains a Forestry School at Creswick where recruits are trained, mainly for employment in the Commission.

The Australian Forestry Council

Following extensive discussions the Commonwealth Government and the Governments of the six Australian States agreed in 1964 to establish an Australian Forestry Council, comprising the Ministers responsible for forestry in the seven Governments and the Commonwealth Minister for Territories.

The Council is intended to provide the means for the mutual exchange between the State and Commonwealth Governments of information and views on forestry. It will co-ordinate research into problems affecting the establishment, development, management, and fire protection of all forests, and the utilisation of forest products. It will assist in co-ordinating the work of State and Commonwealth Governments and also private enterprise in the development of Australian forestry.

The Council is supported by a Standing Committee, consisting of the Director-General of the Forestry and Timber Bureau, the heads of each of the six State Forest Services, the Chief of the Division of Forest Products, C.S.I R.O., and the Secretary of the Department of Territories.

Fire protection

The provision of adequate fire protection is one of the main problems facing forest and rural authorities. The commercial forest area is estimated at 63 million acres, and of this area the forest services maintain a high degree of protection over a relatively accessible area of about 23 million acres, about 17 million acres in the more inaccessible area receive a lesser degree of protection, and about 8 million acres are at present not protected. The remaining area of 15 million acres is mainly privately owned or leased, and under some degree of fire protection from the rural volunteer fire-fighting organisations or Government-financed fire protection associations.

Very intensive fire protection is afforded the coniferous plantation area of Australia. During the severe 1964–65 season 3,130 acres of coniferous plantations were burnt. This represents 0.56 per cent of the area of 556,000 acres for which statistics are available. This was the largest area of coniferous plantations burnt since 1952. The area burnt in 1965–66 was 1,520 acres, or 0.25 per cent of the area of 610,000 acres for which statistics are available.

Protection of private property outside urban areas is undertaken by volunteer bush fire brigade organisations which are co-ordinated in each State by a committee or board carrying out functions of an advisory or educational nature and fostering the growth and organisation of the bush fire brigade movement. Throughout the main agricultural and forest areas of Australia there are over 5,000 registered volunteer bush fire brigades with a membership approaching 250,000. Although forest and rural fire organisations are entirely separate entities, a high degree of co-operation and liaison is maintained.

In addition to the forest service and rural organisations, various private and semi-governmental bodies in each State maintain fire protection organisations, which are generally concerned with the protection of private forestry operations and hydro-electric and water catchment areas.

Over the five-year period 1962 to 1966 the annual cost of protecting from fire the 40 million acres of forest land for which State forest services, semi-governmental bodies and private companies provide protection, is estimated at $5,000,000, or about twelve cents an acre. The cost of fire protection during the severe 1964–65 fire season was $5,500,000. The cost of rural fire control as a whole cannot be estimated with any degree of accuracy, because by far the greatest contribution comes from the personal efforts of volunteer brigade members.

The Australian fire season is very variable, especially in the eastern and southern States. On the average, damaging fires can occur over a period of four months in all climatic zones. Occasionally this occurrence can extend one month either side of the main fire period. Individual fire seasons are generally of much shorter duration than four months, and the severity of a season is judged more on the number of 'blow-up' days than on its length. On the average, four years in ten are classified as of average severity and two years in ten as severe, the remaining four years being of below-average severity. During severe seasons in the past as much as 15 per cent of the forest area has been burnt. However, with improving fire control services, it can be expected that the area burnt in severe fire seasons will in future be significantly reduced. The number of forest fires and the forest area burnt during recent years is shown in the following table.

NUMBER OF FIRES AND FOREST AREAS BURNT: AUSTRALIA 1961-62 TO 1965-66

(*Source:* Forestry and Timber Bureau)

Year	Number of fires	Forest areas burnt	Burnt areas as a proportion of area receiving protection(*a*)
	no.	'000 acres	per cent
1961–62	1,761	297	0.8
1962–63	1,299	275	0.7
1963–64	1,494	549	1.5
1964–65	2,307	1,626	4.1
1965–66	1,865	465	1.2

(*a*) For this table the area receiving protection has been taken as the 40 million acres for which State forest services provide protection.

Intensive research work is being undertaken on fire problems, and several government groups are working on such projects as the study of fire behaviour and associated fuel and meteorological conditions, the use of chemical aids in fire suppression, the development of protective clothing and devices to aid fire-fighters, and the development of more efficient fire-fighting equipment, including aerial methods of attacking fire and infra-red scanning devices.

Since fire prevention is one of the most important aspects of the problem, intensive campaigns are being conducted to reduce the incidence of man-caused fires. A study of fire causes in recent years reveals that human agencies account for about 90 per cent of all fires, and of this figure at least 80 per cent are preventable. It is estimated that 'burning-off' (much of which is started illegally) accounts for 30 per cent of all fires. Lightning accounts for a little over 10 per cent of all fires in Australia, although the incidence of fires caused by lightning is much higher in certain areas, especially the southern highlands regions in New South Wales and Victoria. Although lightning is a relatively small numerical cause of fire, the percentage area burnt from this cause is estimated at about 20 per cent. This higher figure is due to the occurrence of multiple fire outbreaks which cause fire fighting difficulties and to the inaccessability of the areas in which such fires generally occur.

An increasing number of fires are starting from roadsides, and smoking materials account for a high proportion of these fires. The fire-proofing of roadsides by chemical and mechanical means should reduce this incidence, which has accounted for over 25 per cent of all fires in some regions.

The damage resulting from bushfires in Australia is difficult to estimate. Eucalypts, which comprise the main forest species, are seldom killed by fire, and damage estimates frequently involve the complicated question of loss of increment and degradation of timber quality. It may be conservatively estimated that damage to forest values lies between $2 and $4 per acre burnt per year and that over the last ten years the average value of forest fire damage is of the order of $4 million a year. In very severe fire seasons such as 1925–26, 1938–39 and 1951–52, which affected large areas of the continent, fire loss may have been as high as $200 million.

Commonwealth loans to expand softwood plantations

In February 1965 the Australian Forestry Council recommended that the rate of expansion of softwood timber planting in Australia should be increased from their existing level of about 40,000 acres a year to 75,000 acres a year for the next thirty-five years. The recommendation envisaged a phased increase in the rate of Government plantings by the various State Governments up to a level of some 65,000 acres per annum, and an average of at least 10,000 acres per annum by private forest owners. This programme would make a major contribution towards meeting Australia's future requirements for softwood products.

In February 1966 the Commonwealth Government endorsed this recommendation and agreed, as a first step towards achieving the proposed annual target of 75,000 acres, to provide financial assistance to each State, over a five-year period commencing 1 July 1966, to enable them to accelerate their rate of softwood plantings. The assistance, which will be provided to the States under section 96 of the Constitution, will take the form of long-term loans repayable over twenty-five years with repayments of principal and the payment of interest to commence ten years after the date of each advance. The *Softwood Forestry Agreements Act* 1967 authorised the Commonwealth to enter into agreements with each of the States to provide financial assistance by way of loans during the financial years 1966–67 to 1970–71 inclusive. Payments under the Act by the Commonwealth to all States in 1966–67 amounted to $291,000. It is estimated that $3,926,000 will be provided in 1967–68.

Employment in forestry

Persons engaged in forestry activities

In the following table, which shows particulars collected in the population censuses of Australia of 30 June 1947, 1954 and 1961, the numbers of persons whose industry statements were classified to 'forestry (excluding sawmilling)' are shown, together with the numbers engaged in all primary industries and the total work force. An adjustment was made to the 1947 and 1954 industry data by distributing over the range of recorded industry the number of persons whose industry was not stated. No such adjustment was made to the 1961 figures.

PERSONS ENGAGED IN FORESTRY: AUSTRALIA, CENSUSES, 1947, 1954 AND 1961

	Census, 30 June—		
	1947	1954	1961
Persons engaged in—			
Forestry (excluding sawmilling)	24,793	15,468	13,847
All primary industries	563,607	560,100	513,286
Total work force	3,196,431	3,702,022	4,225,096
Persons employed in forestry (excluding sawmilling) as a proportion of—			
All primary industries . . . %	4.4	2.8	2.7
Total work force . . . %	0.8	0.4	0.3

Employment by Forestry Departments

In the table following details are shown of the number of persons employed by State forestry departments and by the Forestry and Timber Bureau in the Australian Capital Territory and the Northern Territory at 30 June 1966.

PERSONS EMPLOYED BY FORESTRY DEPARTMENTS STATES AND TERRITORIES, 30 JUNE 1966

Occupational group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Professional staff	292	225	134	68	59	45	6	8	837
Non-professional field staff	271	260	91	12	203	117	14	2	970
Clerical staff	290	265	209	109	58	94	10	7	1,042
Extraction of timber	1,423	34	112	..	38	15	11	..	6,320
Milling of timber		16	..	683	42	..	..	..	
Labour (forest workers, etc.)		937	1,581	288	561	384	123	72	
Total	**2,276**	**1,737**	**2,127**	**1,160**	**961**	**655**	**164**	**89**	**9,169**

Employment in milling operations

Details of the average number of persons employed, including working proprietors, in sawmills during the year 1965–66 are shown in the next table. Further details regarding the operations of sawmills in 1964–65 are shown in the chapter Manufacturing Industry.

NUMBER OF SAWMILLS AND NUMBER OF PERSONS EMPLOYED STATES AND TERRITORIES, 1965-66

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number of sawmills	724	446	504	95	189	289	1	8	2,256
Average number of persons employed during year—									
Males	7,950	5,741	5,529	2,293	3,374	2,880	(a)	(a)	27,842
Females	404	278	319	218	161	62			1,449
Persons	*8,354*	*6,019*	*5,848*	*2,511*	*3,535*	*2,942*			*29,291*

(a) Not available for publication; included in Australian total.

Forest production

Forest products

FOREST PRODUCTION(a): STATES AND TERRITORIES, 1965-66

Product		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Logs for sawing, peeling, slicing, or pulping—										
Forest broadleaved	'000 cu ft	54,684	69,499	22.356	487	49,814	55,655	24	68	252,587
Brushwoods and scrubwoods	"	4,667	..	9,355	..	..	..	5	..	14,027
Coniferous—										
Indigenous forest 'pines'—										
Cypress	"	7,025	..	5,331	..	..	..	131	..	12,487
Other	"	470	..	2,946	..	..	290	..	..	3,706
Plantation grown 'pines'	"	8,708	14,377	4,378	26,748	2,149	2,115	..	1,418	59,894
Total logs	"	*75,554*	*83,876*	*44,367*	*27,236*	*51,963*	*58,059*	*160*	*1,487*	*342,701*
Value of logs	$'000	*22,367*	*22,494*	*14,973*	*6,028*	*8,187*	*13,106*	*318*	*332*	*87,804*
Hewn and other timber (not included above)—										
Firewood(b) (weight)	'000 tons	229	832	98	521	545	440	2	1	2,668
Other(c) (value)	$'000	9,726	2,928	2,252	253	(d)1,268	799	27	37	17,290
Value of hewn and other timber	"	11,029	11,481	2,770	3,641	(d)3,737	2,882	40	52	35,632
Other forest products(e) (total value)	"	267	171	299	60	(f) 20	3	..	..	820
Total value of forest products	"	33,663	34,146	18,043	9,729	g 12,731	15,990	358	384	125,044

(a) Excludes some production from private land thought to be relatively small, details of which are not available. (b) Includes mill waste used as firewood. (c) Includes sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, etc. (d) Excludes timber used for tannin extract, details of which are not available for publication. (e) Includes charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin, etc. (f) Excludes value of sandalwood and substitutes, details of which are not available for publication. (g) Includes timber used for tannin extract and sandalwood and substitutes.

FOREST PRODUCTION(*a*): AUSTRALIA, 1961-62 TO 1965-66

Product		1961–62	1962–63	1963–64	1964–65	1965–66
Logs for sawing, peeling, slicing, or pulping—						
Forest broadleaved . . .	'000 cu ft	223,389	230,401	245,674	251,753	252,587
Brushwoods and scrubwoods .	„	11,890	12,657	12,741	13,549	14,027
Coniferous—						
Indigenous forest 'pines'—						
Cypress	„	12,351	12,489	13,070	13,795	12,487
Other	„	3,676	3,799	3,950	3,766	3,706
Plantation grown 'pines' . . .	„	42,245	49,569	50,883	56,255	59,894
Total logs	„	*293,551*	*308,915*	*326,318*	*339,117*	*342,701*
Value of logs	$'000	*71,176*	*74,954*	*79,576*	*86,494*	*87,804*
Hewn and other timber (not included above)—						
Firewood(*b*)(weight)	'000 tons	2,742	2,702	2,720	2,690	2,668
Other(*c*)(value)	$'000	15,558	13,604	13,900	15,256	17,290
Value of hewn and other timber(*d*)	„	31,184	28,944	31,872	32,998	35,632
Other forest products(*e*) (total value)	„	842	588	618	739	820
Total value of forest products (*f*)	„	103,686	104,820	112,416	120,801	125,044

(*a*) Excludes some production from private land, thought to be relatively small, details of which are not available. (*b*) *See* footnote (*b*) to previous table. (*c*) *See* footnotes (*c*) and (*d*) to previous table. (*d*) Incomplete; *see* footnote (*d*) to previous table. (*e*) See footnotes (*e*) and (*f*) to previous table. (*f*) Includes timber used for tannin extract and sandalwood and substitutes in Western Australia.

Value of production

While statistics of both the gross value (at principal markets) and local value (at place of production) of the forestry industry are available, particulars of the value of materials used in the process of production are not available for all States. For this reason values cannot be stated on a net basis, as has been done with most other industries. A more detailed reference to the value of production of forestry and other industries in Australia, as well as a brief explanation of the terms used, will be found in the chapter Miscellaneous.

GROSS AND LOCAL VALUE OF FORESTRY PRODUCTION STATES AND TERRITORIES, 1965-66

($'000)

State or Territory	Gross value(*a*)	Marketing costs	Local value(*b*)
New South Wales	33,663	1,321	32,342
Victoria	34,146	1,712	32,434
Queensland	18,043	4,453	13,590
South Australia	9,729	36	9,693
Western Australia	12,731	766	11,965
Tasmania	15,990	2,154	13,837
Northern Territory . . .	358	n.a.	358
Australian Capital Territory .	384	n.a.	384
Australia	125,044	10,442	114,603

(*a*) Gross production valued at principal markets. (*b*) Gross production valued at place of production.

LOCAL VALUE OF FORESTRY PRODUCTION: STATES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
			LOCAL VALUE ($'000)				
1961–62 . .	28,862	26,260	11,790	7,466	10,382	10,180	95,236
1962–63 . .	27,976	26,200	11,976	8,116	10,162	11,314	96,102
1963–64 . .	29,618	28,920	12,980	8,168	10,734	11,638	102,624
1964–65 . .	31,586	32,076	13,482	8,801	11,334	13,270	111,139
1965–66 . .	32,342	32,434	13,590	9,693	11,965	13,837	114,603
			LOCAL VALUE PER HEAD OF POPULATION ($)				
1961–62 . .	7.31	8.88	7.70	7.64	13.93	28.83	8.98
1962–63 . .	6.96	8.70	7.71	8.15	13.26	31.59	8.90
1963–64 . .	7.27	9.41	8.19	8.01	13.63	32.09	9.32
1964–65 . .	7.63	10.23	8.35	8.39	14.07	36.24	9.90
1965–66 . .	7.69	10.16	8.25	8.99	14.50	37.46	10.01

(*a*) Includes Northern Territory and Australian Capital Territory.

Timber and timber products

Mill production of timber

Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table. These figures have been compiled from the annual factory collections in each State, which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g. sleeper cutters.

OUTPUT OF AUSTRALIAN-GROWN TIMBER: ALL MILLS, STATES, 1965-66

('000 super ft)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
Logs treated (gross hoppus)(*b*)—							
Broadleaved .	684,850	514,854	344,367	7,305	469,486	350,402	2,371,443
Coniferous .	121,349	82,277	115,024	220,386	20,421	10,064	569,521
Total, logs treated .	*806,199*	*597,131*	*459,391*	*227,691*	*489,907*	*360,466*	*2,940,964*
Sawn, peeled or sliced timber produced from logs above—							
Broadleaved .	354,054	282,031	168,116	4,526	203,479	173,626	1,185,831
Coniferous .	73,270	42,478	65,258	135,153	10,467	4,844	331,469
Total, timber produced .	*427,323*	*324,509*	*233,374*	*139,678*	*213,946*	*178,470*	*1,517,300*

(*a*) Excludes Australian Capital Territory and Northern Territory. (*b*) Gross hoppus measure is approximately 78.5 per cent of the true volume.

OUTPUT OF AUSTRALIAN-GROWN TIMBER, ALL MILLS: AUSTRALIA(*a*)
1961-62 TO 1965-66
('000 super ft)

	1961–62	1962–63	1963–64	1964–65	1965–66
Logs treated—					
Broadleaved	2,524,530	2,552,552	2,681,691	2,767,843	*b* 2,371,443
Coniferous	640,832	778,677	696,831	728,691	(*b*) 569,521
Total, logs treated	*3,165,362*	*3,331,230*	*3,378,522*	*3,496,535*	*b 2,940,964*
Sawn, peeled or sliced timber produced from logs above—					
Broadleaved	1,063,086	1,088,197	1,157,175	1,203,705	1,185,831
Coniferous	289,117	322,370	330,014	329,508	331,469
Total, timber produced	*1,352,202*	*1,410,567*	*1,487,189*	*1,533,213*	*1,517,300*

(*a*) Excludes Australian Capital Territory and Northern Territory. (*b*) Gross hoppus basis: not necessarily comparable with details for previous years, which are generally on a true volume basis.

In addition to the mill production of timber shown in the preceding tables, a large quantity of hewn and round timber, e.g. sleepers, piles, poles, fencing timber, timber used in mining and fuel, is obtained directly from forest and other areas. Complete information in respect of the volume of this output is not available.

Veneers, plywood, etc.

Cutting of timber for the manufacture of veneers, plywood, etc. has been carried out in most States for a number of years. In recent years this has been considerably extended, since plywood manufacture has allowed the use of some species unsuitable for sawing. Special attention has been paid to ensure that logs suitable for peeling are diverted to ply factories.

PLYWOOD PRODUCED: STATES, 1961-62 TO 1965-66
('000 square feet: $\frac{3}{16}$-in basis)

State	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales	56,184	56,766	58,880	59,045	54.201
Queensland	98,086	85,746	97,252	94,766	80,761
Other States	48,537	52,751	60,150	63,249	52,296
Australia	**202,807**	**195,263**	**216,282**	**217,059**	**187.258**

Of the total plywood produced in 1965–66, 101,938,000 square feet ($\frac{3}{16}$-in basis) were classed as 'Commercial', 63,452,000 as 'Waterproof', 3,228,000 as 'Case', and 18,640,000 as 'Sliced fancy'.

During 1965–66, 753.0 million square feet ($\frac{1}{16}$-in basis) of veneers were produced by the rotary process for the manufacture of plywood, including 243.5 million square feet ($\frac{1}{16}$-in basis) sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 44.5 million square feet of sliced veneers were produced.

Manufactured boards

Hardboard. During the three years ended 30 June 1966 the following quantities of hardboard were produced: 1963–64, 358 million square feet; 1964–65, 381 million square feet; and 1965–66, 362 million square feet.

Resin-bonded boards. Production of resin-bonded boards (made from wood chips, wood wool, sawdust, etc.) amounted to 8,428,000 square yards during 1965–66.

Wood pulp and paper

Wood pulp. During 1965–66 wood pulp production was 331,077 tons of chemical, mechanical and other pulp. During the previous year production was 317,435 tons.

Detailed information relating to the types and methods of production of wood pulp in the various States was published in Year Book No. 50, 1964, page 1110.

Paper and paper board. Paper and paper board are manufactured in all States, but the greater part of the industry is in New South Wales, Victoria and Tasmania. During 1965–66 twenty-five paper mills were operating, eleven in Victoria, four in New South Wales, four in Tasmania, two each in Queensland and South Australia, and two in Western Australia. A wide variety of paper and paper board is produced in Australian mills. The table below gives details of the production of some of the principal items.

PRODUCTION OF PAPER PRODUCTS: AUSTRALIA, 1963-64 TO 1965-66

Type of paper	Quantity (tons)			Value ($'000)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Newsprint	92,039	93,142	93,211	12,855	12,948	12,106
Blotting	553	488	601	164	124	161
Duplicating	7,008	7,386	9,721	2,370	2,618	3,758
Printing and writing	94,473	101,222	120,540	29,062	28,948	35.818
Wrapping—						
Kraft	141,006	160,807	149,331	33,134	37,403	34,568
Other	12,127	16,158	11,114	4,295	5.269	3.850
Paper felts	1,917	1,868	1,700	410	407	366
Paper boards	258,374	296,387	317,553	40,965	47,670	51,465

Overseas trade in forest products, timber and timber products

Imports

IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS AUSTRALIA, 1965-66

		Quantity	Value ($'000 f.o.b.)
Wood in the rough or roughly squared	'000 sup ft	34,371	2,163
Wood shaped or simply worked—			
Timber sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—			
Conifer—			
Douglas fir	"	177,453	16,860
Hemlock and balsam	"	13,629	882
Radiata pine	"	25,945	1,955
Redwood and western cedar	"	16,597	2,015
Non-conifer	"	..	7,780
Tanning extracts of vegetable origin	cwt	67,608	490
Wood and cork manufactures (except furniture)—			
Veneers, plywood boards, 'improved' or reconstituted wood and other wood, worked, n.e.s.		..	5,617
Wood, worked, n.e.s.		..	2,683
Cork manufactures		..	1,200

Owing to the adoption of the new Australian Import Commodity Classification from July 1965 (*see* page 379) completely comparable figures for years prior to 1965–66 are not available.

Imports of coniferous timbers, shaped or simply worked, came mainly from Canada and the United States of America in 1965–66. Malaysia was the source of by far the greater proportion of non-coniferous timber imports. The Federal Republic of Germany and the United Kingdom supplied most of Australia's imports of veneers, while plywood imports came mainly from Japan and Papua and New Guinea.

Exports

Details of exports of Australian forest and timber products in the years 1963–64 to 1965–66 are given in the following table.

EXPORTS OF AUSTRALIAN FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS(*a*): AUSTRALIA, 1963–64 TO 1965–66

		Quantity			Value ($'000 f.o.b.)		
		1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Logs not sawn	'000 sup ft	4,070	2,994	1,762	371	323	250
Undressed timber(*b*)—							
Sleepers	"	21,578	9,735	4,792	2,263	1,056	644
Fence posts, girders and pole blocks	"	650	701	915	80	73	115
Softwoods(*c*), n.e.i.	"	117	203	279	22	41	76
Hardwoods(*d*), n.e.i.	"	13,499	16,490	12,256	1,856	2,320	1,854
Dressed timber	"	1,907	1,632	1,374	536	448	292
Veneers	'000 sq ft	2,453	1,411	3,272	102	61	138
Plywood	"	735	590	1,494	174	161	333
Tanning substances	cwt	101,008	92,498	94,922	611	597	662
Charcoal	"	5,793	2,128	10,243	54	20	121
Eucalyptus oil	'000 lb	304	295	275	230	269	222
Acaroid resin, grass tree and yacca gum	cwt	6,583	6,774	6,746	26	21	26

(*a*) Excludes re-exports. (*b*) Excludes stumps and the like. (*c*) Non-pored woods. (*d*) Pored woods.

Of the exports of logs in 1965–66, 49 per cent were consigned to New Zealand; of the sleepers exported, 39 per cent were consigned to the United Kingdom and 38 per cent to New Zealand; while of all undressed timber exported, 45 per cent were consigned to New Zealand. Consignments to the United States of America accounted for 73 per cent of the exports of tanning substances in 1965–66.

CHAPTER 25

FISHERIES

Further information on subjects dealt with in this chapter is contained in the annual printed bulletin *Non-Rural Primary Industries and Value of Production* and in the annual mimeographed statistical bulletin *Fisheries*, particularly as regards types of fish, etc. caught.

Fisheries resources and their commercial exploitation

Fish

It has been calculated that there are approximately 2,000 species of fish in Australia and the waters surrounding it (including freshwater species). Fishing is carried out continually in estuarine, coastal and offshore Australian waters in the east and south from Port Douglas in Queensland to Ceduna in South Australia, and in Western Australia from Esperance to Exmouth Gulf, and sporadically in the Onslow, Broome, Darwin, and Karumba areas in the north. Most fishing is done in waters over the continental shelf, which varies greatly in width around the continent, but tuna is sometimes fished beyond the shelf. As in other countries, fisheries in Australia may be divided into three types: the estuarine fisheries, located in the tidal waters of rivers and coastal lakes; the pelagic fisheries, which exploit species inhabiting the surface layers of the open ocean; and the demersal fisheries, which fish the bottom layers of the sea. The estuarine fisheries produce considerable quantities of the table varieties, such as mullets (*Mugil cephalus* and associated species) and breams (*Acanthopagrus spp.*). In addition to these there is a small freshwater commercial fishery, principally in New South Wales and South Australia, exploiting Murray cod (*Maccullochella macquariensis*) and golden perch (*Plectroplites ambiguus*). The pelagic fisheries produce species exploited during their seasonal migration, such as Australian 'Salmon' (*Arripis trutta*), which is a member of the order Perciformes, or perch-like fishes, tunas (*Fam. Thynnidae, Katsuwonidae, Sardidae*), barracouta (*Leionura atun*), and mackerels (*Cybium spp.*). These fisheries, with the exception of some tuna, mackerel and reef fisheries, are concentrated in the temperate waters around the southern half of the continent. The offshore demersal fisheries include those pursued on the reefs which may be found virtually right around the continent, and which yield such species as snapper (*Chrysophrys auratus*), the so-called 'cods' (*Epinephelus, Choerodon, Callyodon spp.*) and associated species; those pursued on the trawling grounds, which produce species such as flathead (*Neoplatycephalus, Trudis spp.*), morwong (*Nemadactylus spp.*), John Dory (*Zeus faber*), etc.; and the important fishery for edible shark (school shark, *Galeorhinus australis* and gummy shark, *Mustelus antarcticus*) in south-eastern Australia.

Crustaceans

Crustaceans taken in Australia include crayfish, prawns, crabs, and freshwater lobsters. Crayfish (southern, *Jasus lalandei;* western, *Panulirus cygnus;* and eastern, *Jasus verreauxi*) is the most important crustacean exploited in Australia, and various species occur on the reefs of the continental shelf in all States. The commercial fishery, for technological reasons and through lack of knowledge of numbers, has not extended to the tropical species (*P. ornatus*), etc., but is concentrated on species found around the southern half of Australia. Prawns (*Penaeus* and *Metapenaeus spp.*) are taken in the estuarine, coastal and offshore waters of New South Wales and Queensland, in the Shark Bay and Exmouth Gulf region of Western Australia, and in the Gulf of Carpentaria in Northern Territory. Crabs (*Scylla* and *Portunus spp.*) are taken mainly in Queensland and Western Australia, but small quantities are also taken in the other States. Freshwater lobsters (*Euastacus serratus*) are caught in inland streams in New South Wales, and one species, marron (*Cheraps tenuimanus*) forms the basis of an amateur fishery in the south-west of Western Australia.

Molluscs

Edible molluscs produced in Australia include oysters (mainly *Crassostrea commercialis*), scallops, mussels, and some of the cephalopods (squid, octopus, cuttlefish). Naturally-grown oysters are produced in all States except South Australia. In New South Wales, and to a lesser extent in Queensland, edible oysters are cultured commercially. The scallops (*Pecten meridionalis* and *Equichlamys bifrons*) are taken in Tasmania, the saucer scallop (*Amusium balloti*) is harvested in Queensland, and a fishery exploiting the species *Pecten alba* has been developed in Port Phillip Bay. Mussels (*Mytilis planulatus*) are gathered mainly in Victoria. Small quantities of cephalopods, mainly squid (*Loligo spp.*), are produced in many localities. Increased interest in the abalone (*Haliotis spp.*) has resulted in the development of fisheries off southern New South Wales and Victoria and the east and south-west coasts of Tasmania. Other edible molluscs taken from time to time include pipis (*Plebidonax deltoides*).

Pearl-shell and trochus-shell

The shell of the Australian species of pearl oyster (*Pinctada maxima*) is taken in the tropical waters of Australia from Exmouth Gulf in Western Australia to Cairns in Queensland for the manufacture of buttons, knife handles, etc. Live pearl-shell is used for pearl culture, the *Pinctada maxima* being capable of producing pearls which are the largest in the world and which command top market prices. Trochus-shell is found mainly on coral reefs off the Queensland coast, although small quantities occur in Western Australia.

Whales

The Australian whaling industry formerly exploited the humpback whales (*Megaptera novaeangliae*) during their winter migrations along the east and west coasts of Australia. However, owing to the total prohibition placed on their capture by the International Whaling Commission in 1963, Australian whaling is now confined to the sperm whale (*Physeter catodon*) which has been taken in the southern waters of Western Australia since 1955.

Marine flora

Seaweeds of possible commercial value occur in the coastal waters of New South Wales, Tasmania, South Australia, and Western Australia. At Louisville, Tasmania, a factory is processing seaweed (*Macrocystis pyrifera*) for its alginate content.

History of the development of fisheries industries in Australia

Fishing

At the beginning of this century Australian fisheries were principally estuarine and onshore, and the deeper offshore resources were comparatively unknown. Vessels were generally sail-powered, and catching and preservation methods were primitive.

From 1909 to 1914 a Commonwealth vessel was engaged in research into fisheries resources around Australia. As a result of this exploration, otter trawling in the south-eastern waters began in 1915. There have been several years of high production from this fishery, but in each case the peak year was followed by a period of low production. Danish seine trawlers entered this fishery in 1936. In 1958–59 steam otter trawling vessels used in this area were taken out of service. This fishery is at present stabilised at a relatively low level of production.

The tuna fishery began with the establishment in 1937 of a cannery at Narooma in New South Wales to exploit the occurrences, mainly of southern bluefin tuna (*Thunnus thynnus maccoyii*), which had been revealed by aerial surveys in 1936. However, landings were insignificant for over a decade. In 1950 the Commonwealth Government sponsored an American-owned clipper and trained crew to instruct fishermen in the pole-and-live-bait method of catching tuna (*see* plate 49). Development of the South Australian tuna fishery followed the visit of two American tuna experts in 1954. Recent developments in tuna fishing include the use of gill netting, long lining and the purse seine technique which was successfully used for the first time in 1965. Techniques for taking species of tuna other than southern bluefin are being investigated.

Crustaceans

The crayfishery, which is pursued off south-eastern Australia and off the west coast of Western Australia, was for many decades on a small scale. It was not until 1944 that the major sector, the western crayfishery, began to develop into what is now Australia's most productive single fishery. Between 1944 and 1947 production from the shallow areas of Houtman Abrolhos was used for canning for the armed forces. From 1948 to 1953 mechanisation of the fleet was introduced progressively and deeper waters were worked. The United States market for frozen craytails was established during this period. The period 1954 to 1962 saw the introduction of larger and more powerful vessels, of conservation measures designed to maximise the sustainable yield, and of increased processing facilities. In the southern crayfishery development has followed similar lines, but on a smaller scale because of the smaller crayfish population. (*See* photographs, plate 50.).

The prawn fishery was pursued for many decades on a small scale, but it was not until the discovery that prawns spawn in oceanic waters that interest developed in catching them during this phase of their life cycle. The discovery in 1947 of stocks of prawns in Stockton Bight and off Evans Head (both in New South Wales) initiated the development of deep-sea prawning in Australia. Since that time the prawn fishery has expanded to the eastern offshore grounds. Commercial prawn fisheries in Western Australia commenced at Shark Bay in 1962 and at Exmouth Gulf in 1964.

Molluscs

Natural oyster-beds were being harvested soon after settlement first began, but by 1870 rapid depletion of the stocks had resulted in restrictive legislation being passed in New South Wales. By the end of the nineteenth century, however, farms had been established in New South Wales and oyster cultivation was a notable industry. This cultivation has been almost entirely confined to the river estuaries of New South Wales. Very few oysters are exported and importation of oysters is necessary to cope with home demand. During 1964 a commercial scallop fishery was established in Port Phillip Bay and there was a noticeable development in the harvesting of abalone in the waters of New South Wales, Tasmania and Victoria.

Whaling

Whaling has been undertaken from time to time in Australia since the early days of settlement. Humpback whaling was carried out from stations on the west coast of Australia from 1949, and on the east coast from 1952. However, depleted stocks of the species resulted in the closing down by 1962 of the eastern stations, and in 1963, owing to the severe decline in world stocks of humpback whales, the International Whaling Commission, of which Australia is a member, prohibited the capture of the species south of the equator for an indefinite period. Australian whaling is now carried out from Albany only, where the catch is confined to sperm whales.

Pearling

Since the middle of the nineteenth century, when pearling by Europeans first began in Australia, the collection of natural pearls has been incidental to the production of mother-of-pearl shell. Although attempts to establish pearl culture in Australia had been partially successful as early as the end of the last century, it was not until 1956 that the modern technique, as developed by the Japanese, was introduced into Australia at Kuri Bay in Western Australia. The joint venture between Australian and Japanese interests proved successful and others entered the industry. There are now fifteen pearl culture farms in Western Australia, the Northern Territory and Queensland. Twelve of the farms are operated as joint ventures by Australian and Japanese interests, while three are wholly Australian enterprises. The technique of pearl culture is still a closely-guarded trade secret.

Fisheries administration and research

Government administration

The fisheries within territorial waters (that is, within three miles of the shore) are administered by State departments and Territory administrations. The Fisheries Branch of the Department of Primary Industry develops and administers fisheries in extra-territorial waters and co-ordinates fisheries administration. In 1967 the Commonwealth Government announced that it proposed to extend exclusive fishing limits around Australia from three to twelve miles. This proposal does not involve any change in territorial waters, and the new zone will be administered by the Commonwealth.

The fisheries laws of each State and Territory and of the Commonwealth provide for the licensing of boats used in commercial fishing operations and of commercial fishermen. The provisions are broadly similar in each State, the general requirement being that any person who takes fish for sale, and any boat used in such fishing operations, must be licensed in the State or Territory concerned. Some States extend the licensing requirements to amateur or part-time fishermen. Australian nationals who fish commercially outside the territorial waters of a State or Territory, but within Australian waters as proclaimed under the *Fisheries Act* 1952–1966, are required to take out licences and to register their boats under that Act.

Fish stocks inhabiting Australian waters are a common property resource. With the exception of the Western Australian and Tasmanian crayfisheries and the Shark Bay and Exmouth Gulf prawn fisheries, there are no restrictions on recruitment of men and vessels to any fishery. It has, therefore, been necessary for governmental action to be taken in an endeavour to provide rules of operation in certain fisheries which are vulnerable to depletion. The policy basic to the management of these fisheries is the greatest sustainable yield consistent with economic operations. Where a fishery, for economic reasons, is not producing its maximum yield, efforts to discover new methods of utilisation of the catch are made.

The *Pearl Fisheries Act* 1952–1966 provides for the management of the pearl-shell resources in accordance with Australia's proclamation of sovereign rights over the natural resources of the sea bed and subsoil to the 100 fathom line. It requires that all pearlers, vessels, etc. must be licensed, and prohibits the removal of live shell from Australian waters except with the written permission of the Minister for Primary Industry.

Under the *Whaling Act* 1960–1966 the Commonwealth controls whaling from Australian stations in accordance with conditions laid down by the International Whaling Commission. This Commission was established by the International Convention for the Regulation of Whaling, 1946, to organise world-wide conservation measures.

Research

The aim of all fisheries research in Australia is to achieve the greatest sustainable yield of fish and to assist in the development of an efficient industry. To this end much of the biological research already undertaken has been directed at formulating recommendations for management measures in various fisheries. Research work is also carried out which is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, more economical operations, and the use of more efficient equipment.

The organisations in Australia at present engaged in research into fisheries matters are:

- (i) Division of Fisheries and Oceanography, C.S.I.R.O. (fisheries science and oceanography);
- (ii) Division of Food Preservation, C.S.I.R.O. (research into handling, storage, processing, and transportation of fish);
- (iii) the several State fisheries departments (general biological research);
- (iv) Fisheries Branch, Department of Primary Industry (economic and management research, gear technology, extension work to the industry).

Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this chapter have been collected by a number of authorities. The various State fisheries authorities have supplied, through the Deputy Commonwealth Statisticians in the States, the details of employment, boats, equipment, and production of the general fisheries and the pearl and shell fisheries. The Fisheries Branch of the Department of Primary Industry has supplied particulars of the whaling industry. Statistics of the processing of general fisheries products and of overseas trade in the products of fishing and whaling have been compiled in the Commonwealth Bureau of Census and Statistics.

The statistics refer, in general, to financial years. However, pearl and shell fishing data refer to the season ended in the financial year shown. Whaling statistics are shown by calendar years, and refer to the season in the calendar year. All overseas trade information refers to financial years.

In the preparation of Australian fisheries production statistics the quantities of individual products are generally in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of 'estimated live weights' which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on a 'whole weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis. The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

In Australia the basic source of statistical information on commercial fishing operations is the fishermen. In four of the six States monthly returns of catch by species have been obtained from fishermen for a number of years. In the other two States (Queensland and South Australia) there have been no statistical collections from fishermen, and catch statistics have been derived from other sources such as markets and receiving depots. In general it is recognised that catch statistics in Australia have been somewhat incomplete in past years. For example, details of production given in this chapter refer in most cases only to the recorded commercial production. In view of the importance of amateur fishermen in certain types of fishing, details shown cannot be taken as representing the total catch. In addition, it is likely that the figures shown understate to some extent the full commercial catch because no information is available on fish taken for sale by persons not licensed as professional fishermen.

Two weaknesses of fisheries statistical collections in Australia to date have been the lack of uniformity, which makes it difficult to compile statistics on an Australia-wide basis, and the lack of data on the effort involved in taking fish (time spent fishing, gear used, etc.). Recognising these weaknesses, the Commonwealth-States Fisheries Conference in 1960 appointed a Statistics Committee 'to examine all aspects of fisheries statistics and fully document a proposed system for submission to the States and Commonwealth for approval'.

Model system of catch and effort statistics, 1962

The model system of catch and effort statistics designed by the Committee was adopted by the Commonwealth-States Fisheries Conference in 1962. The new system was introduced in Tasmania in 1963 and in Victoria and Western Australia in 1964. The system was introduced in Queensland for the otter trawl fishery early in 1965, but there are no definite plans at present to extend the system to other fisheries. Arrangements are proceeding for the introduction of the model system in New South Wales, but there are no plans as yet for the introduction of the system in South Australia.

Under the new system fishermen are asked to report, on a monthly basis, for the various fishing methods used, catch of each species taken and the locality where the greatest proportion of the catch is taken. Fishermen are asked to record catch in terms of landed weight, and appropriate conversion factors are used to obtain live weight where this is required. A grid system of 1° rectangles (relating to latitude and longitude) is used for recording location of catches at sea, and estuaries and inland waters are recorded where appropriate. Other data obtained include details of fishing effort, ports at which catch is landed, and employment details.

The eventual implementation of this system in all States is expected to ensure the availability of statistical information of a much higher standard in the future. In addition to the new system of catch and effort statistics, a uniform boat registration system is now being introduced by the States. This new system will eventually ensure that details of various characteristics of the commercial fishing fleet are available on a uniform basis for all States.

Boats and equipment used in fisheries

Fish, crustaceans and molluscs (edible)

The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol engines of low power. The offshore vessels range in length from 30 feet to 120 feet and are almost invariably powered by diesel engines. Many of them have insulated holds to carry fish in ice, and some of the crayfish boats are fitted with wells in which the catch is kept alive. Some vessels have dry refrigeration, and others, including some of the tuna live-bait pole-fishing vessels, are equipped with brine refrigeration.

A recent survey showed that about 50 per cent of Australia's commercial fishing fleet, including tenders, consists of vessels up to twenty feet in length, about 25 per cent are in the 20–29 feet category, and the remainder are greater in length. Only a very small number are greater than fifty feet in length. It is hoped that more precise information on this aspect of the fishing fleet will be available in the future when an improved boat registration system is adopted in all States. Almost every type of fishing equipment is used. The following table sets out the equipment most commonly used for the main types of fish, crustaceans and molluscs.

FISHING EQUIPMENT USED IN AUSTRALIA

Type of fish	Equipment used
Mullet	Beach seine, gill net
Shark (edible)	Long-lines, gill net
Australian salmon	Beach seine
Barracouta	Trolling lines
Flathead	Danish seine, otter trawl
Snapper	Long-lines, traps, gill net, handline
Morwong	Danish seine, otter trawl, traps
Whiting	Handlines, Danish seine, beach seine
Garfish	Gill net, beach seine
Mackerel	Trolling lines
Tuna(*a*)	Pole and live-bait, trolling lines, gill net, purse seine
Prawns	Otter trawl, beam trawl, seine net
Crayfish	Pots, traps
Scallops	Dredge, otter trawl

(*a*) Lampara nets and purse seines are used for taking live bait for tuna.

Pearls, pearl-shell and trochus-shell; whaling

Ketch-rigged luggers about fifty-five feet long which carry crews of eight to fourteen members are used for pearl and pearl-shell fishing around Australia.

The whaling industry is highly mechanised. Standard equipment includes aircraft to locate whales, diesel-powered catchers of about 100 to 125 feet in length, and tow boats.

Boats and equipment employed, by industry

The following two tables show details of boats and equipment employed in the taking of fish, crustaceans and edible molluscs, pearl-shell and trochus-shell, and the number of chasers and stations engaged in whaling operations. The reservations mentioned on page 1049 regarding the use of employment information are also applicable to these tables. Boats employed in more than one industry are classified to their main activity.

FISHERIES: BOATS AND EQUIPMENT EMPLOYED AND WHALING STATIONS OPERATING, STATES AND NORTHERN TERRITORY, 1965–66

		N.S.W.	Vic.	Qld	S.A.	W.A.(*a*)	Tas.	N.T.	Aust.
General fisheries—									
Boats employed . .	no.	2,638	910	1.313	2,019	1,464	596	43	8,983
Value of boats and equipment	$'000	8,542	5,253	6,889	6,200	8,766	4,704	132	40,486
Edible oyster fisheries—									
Boats employed . . .	no.	1,365	..	50	..	..	..	..	1,415
Value of boats and equipment	$'000	1,120	..	41	..	..	..	..	1,161
Pearl-shell and trochus-shell—									
Boats employed . . .	no.	..	..	42	..	11	..	4	57
Value of boats and equipment	$'000	..	..	n.a.	..	97	..	52	n.a.
Whaling—									
Chasers	no.	..	..	..	..	3	..	..	3
Stations operating . .	,,	..	..	..	..	1	..	..	1

(*a*) Year ended December 1965.

FISHERIES: BOATS AND EQUIPMENT EMPLOYED AND WHALING STATIONS OPERATING, AUSTRALIA, 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
General fisheries—						
Boats employed . . .	no.	8,147	8,574	8,473	9,426	8,983
Value of boats and equipment .	$'000	25,797	28,298	31,794	36,401	40,486
Edible oyster fisheries—						
Boats employed . . .	no.	1,349	1,294	1,424	1,419	1,415
Value of boats and equipment .	$'000	968	923	976	1,125	1,161
Pearl-shell and trochus-shell—						
Boats employed . . .	no.	56	60	53	40	57
Value of boats and equipment .	$'000	508	550	480	n.a.	n.a.
Whaling—						
Chasers	no.	11	8	3	3	3
Stations operating . . .	,,	4	2	1	1	1

Employment in fisheries

Census data

In the following table, which shows particulars collected in the population censuses of Australia at 30 June 1947, 1954 and 1961, the numbers of persons whose industry statements were classified to 'fishing' are shown together with the numbers engaged in all primary industries and the total work force. The census classification 'fishing' includes such activities as fishing, whaling, pearl-shell fishing, etc. An adjustment was made to the 1947 and 1954 industry data by distributing over the range of recorded industry the number of persons whose industry was not stated. No such adjustment was made to the 1961 figures.

PERSONS ENGAGED IN FISHING: AUSTRALIA, CENSUSES, 1947 TO 1961

		Census, 30 June—		
		1947	1954	1961
Persons engaged in—				
Fishing		10,656	8,637	8,252
All primary industries		563,607	560,100	513,286
Total work force		3,196,431	3,702,022	4,225,096
Persons engaged in fishing as a proportion of—				
All primary industries	%	1.9	1.5	1.6
Total work force	%	0.3	0.2	0.2

Classification of registered commercial fishermen by industry

The following two tables are derived mainly from the licensing records of the various State fisheries authorities. Because the definitions and licensing procedures used by these authorities are not uniform the statistics should not be used to compare the relative productivities of fishing industries in the several States. Persons engaged in more than one industry are classified according to their main activity, and so may be classified differently from one year to the next.

REGISTERED COMMERCIAL FISHERMEN: STATES AND NORTHERN TERRITORY 1965–66

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.(*a*)	Tas.	N.T.	Aust.
General fisheries	2,420	1,566	2,250	(*b*)2,400	2,346	1,154	120	12,256
Edible oyster fisheries	904	..	164	..	4	..	..	1,072
Pearl-shell and trochus-shell	..	..	544	..	107	..	27	678
Whaling(*c*)—At sea	..	..	..	..	44	..	..	44
Ashore	..	..	..	..	42	..	..	42

(*a*) Figures are for the year ended December 1965. (*b*) Estimated; the total number of licensed (including part-time, i.e. non-commercial) fishermen was 8,000. (*c*) Estimated.

REGISTERED COMMERCIAL FISHERMEN: AUSTRALIA, 1961–62 TO 1965–66

Industry	1961–62	1962–63	1963–64	1964–65	1965–66
General fisheries	(*a*) 15,878	11,544	11,862	11,414	12,256
Edible oyster fisheries	993	1,154	1,467	997	1,072
Pearl-shell and trochus-shell	724	727	640	533	678
Whaling(*b*)—At sea	123	85	42	45	44
Ashore	164	90	40	38	42

(*a*) Not comparable with later years: includes part-time (non-commercial) licensed fishermen in South Australia. (*b*) Estimated.

Production, processing and domestic marketing of fisheries products

Fish

The following tables show details of the production of the main types of fish caught in each State and the Northern Territory in 1965–66 and throughout Australia for the years 1961–62 to 1965–66.

FISH: PRODUCTION, BY TYPE, STATES AND NORTHERN TERRITORY, 1965–66

('000 lb estimated live weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Marine types—								
Tuna	4,350	64	10	13,217	47	67	..	17,755
Mullet	6,247	679	4,695	505	1,989	34	3	14,152
Shark	2,123	5,266	84	2,063	970	1,088	4	11,597
Australian salmon	1,035	1,805	..	1,405	6,508	432	..	11,184
Snoek (barracouta)	268	5,268	..	..	..	3,003	..	8,539
Flathead	4,059	1,482	191	..	20	74	..	5,824
Whiting	630	213	511	1,800	446	..	..	3,600
Snapper	1,709	343	92	652	549	..	..	3,344
Morwong	2,549	427	..	..	9	9	1	2,995
Mackerel	217	..	1,839	..	233	2	7	2,298
Luderick	1,433	147	118	..	..	..	..	1,698
Bream (incl. tarwhine)	656	235	463	70	83	..	1	1,508
Leatherjacket	1,435	34	..	..	25	..	..	1,494
Garfish	215	276	130	741	63	46	1	1,471
Ruff	..	126	..	376	939	..	..	1,442
Tailor	300	75	785	..	198	..	..	1,357
Other	4,257	1,685	2,150	901	2,265	199	337	11,795
Total, marine	*31,480*	*18,124*	*11,067*	*21,731*	*14,343*	*4,953*	*355*	*102,053*
Freshwater types	362	342	n.a.	320	..	36	..	(*a*) 1,060
Grand Total	31,842	18,466	*a* 11,067	22,051	14,343	4,989	355	*a* 103,113

(*a*) Excludes freshwater fish caught in Queensland, particulars of which are not available.

FISH: PRODUCTION, BY TYPE, AUSTRALIA, 1961–62 TO 1965–66

('000 lb estimated live weight)

Type	1961–62	1962–63	1963–64	1964–65	1965–66
Marine types—					
Tuna	10,616	11,006	17,932	15,838	17,755
Mullet	13,242	13,736	12,496	12,146	14,152
Shark	8,691	10,524	10,463	10,470	11,597
Australian salmon	11,534	7,794	11,260	8,291	11,184
Snoek (barracouta)	6,810	4,842	4,331	6,514	8,539
Flathead	6,458	6,828	6,151	6,836	5,824
Whiting	3,513	3,699	3,498	3,658	3,600
Snapper	3,757	4,107	4,160	3,877	3,344
Morwong	2,773	4,949	4,545	3,218	2,995
Mackerel	1,631	2,192	2,215	2,316	2,298
Luderick	1,020	1,311	1,293	1,356	1,698
Bream (incl. tarwhine)	1,382	1,531	1,233	1,293	1,508
Leatherjacket	2,192	1,955	1,125	1,343	1,494
Garfish	1,464	1,644	1,740	1,422	1,471
Ruff	1,188	1,360	1,093	1,507	1,442
Tailor	1,148	955	1,627	1,748	1,357
Other	9,780	9,941	10,907	11,401	11,795
Total, marine	*87,200*	*88,375*	*96,067*	*93,234*	*102,053*
Freshwater types(*a*)	1,260	1,309	1,015	1,183	1,060
Grand total(*a*)	88,460	89,684	97,082	94,417	103,113

(*a*) Excludes freshwater fish caught in Queensland, particulars of which are not available.

CRUSTACEANS: PRODUCTION, BY TYPE, STATES AND NORTHERN TERRITORY, 1965–66

('000 lb gross weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Crayfish(*a*) .	402	1,681	30	6,063	17,794	3,939	. .	29,908
Prawns . .	4,016	11	6,034	. .	2,485	. .	1	12,547
Crabs . .	191	. .	586	. .	35	. .	4	815
Total . .	**4,608**	**1,693**	**6,649**	**6,063**	**20,313**	**3,939**	**5**	**43,270**

(*a*) Includes freshwater crayfish caught in New South Wales and shovelnosed lobster taken in Queensland.

CRUSTACEANS: PRODUCTION, BY TYPE, AUSTRALIA 1961–62 TO 1965–66

('000 lb gross weight)

Type	1961–62	1962–63	1963–64	1964–65	1965–66
Crayfish(*a*)	29,356	31,400	27,633	26,386	29,908
Prawns	9,322	12,615	13,369	12,076	12,547
Crabs	875	842	708	832	815
Total	**39,552**	**44,858**	**41,711**	**39,293**	**43,270**

(*a*) Includes freshwater crayfish caught in New South Wales and shovelnosed lobster taken in Queensland.

Molluscs (edible)

A fast-developing scallop production since 1964 led to scallop exports rising to 1.8 million pounds weight for the 1965–66 period. France provided the largest market.

MOLLUSCS: PRODUCTION, BY TYPE, STATES, 1965–66

('000 lb gross [in-shell] weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Scallops	. .	27,956	700	. .	(*a*)	868	(*b*)29,524
Oysters	14,654	7	381	. .	26	. .	15,067
Abalone	356	961	. .	19	. .	1,600	2,937
Mussels	. .	425	. .	. .	. .	. .	425
Squid	. .	126	101	. .	5	1	233
Octopus	. .	31	. .	. .	3	. .	34
Cuttlefish	. .	2	. .	. .	1	. .	3
Total . . .	**15,010**	**29,508**	**1,182**	**19**	**35**	**2,468**	(*c*) **48,223**

(*a*) Not available for publication. (*b*) Excludes Western Australia. (*c*) Incomplete *see* footnote (*b*).

MOLLUSCS(*a*): PRODUCTION, BY TYPE, AUSTRALIA, 1961-62 TO 1965-66

('000 lb gross [in-shell] weight)

Type	1961–62	1962–63	1963–64	1964–65	1965–66
Scallops . . .	5,172	(*b*) 6,498	(*b*) 15,373	(*b*) 24,739	(*b*) 29,524
Oysters . . .	12,613	13,029	12,775	14,636	15,067
Abalone . . .	. .	. .	192	966	2,937
Mussels . . .	646	683	410	334	425
Squid . . .	319	292	303	217	233
Octopus . . .	58	18	16	13	34
Cuttlefish . . .	7	1	1	1	3
Total . . .	**18,815**	(*c*) **20,521**	(*c*) **29,073**	(*c*) **40,907**	(*c*) **48,223**

(*a*) Excludes pipis, particulars of which are not available for publication. No pipis were taken in 1965–66. (*b*) Excludes Western Australia, particulars of which are not available for publication. (*c*) Incomplete; *see* footnote (*b*).

Pearls, pearl-shell and trochus-shell

In recent years the production of pearl-shell has declined, owing to the development of plastics. However, the advent of pearl culture has since created a growing demand for live pearl-shell.

PEARL CULTURE OPERATIONS: AUSTRALIA, 1961 TO 1965

(*Source:* Fisheries Branch, Department of Primary Industry)

		1961	1962	1963	1964	1965
Purchases of shell	no. of shells	230,682	337,653	503,100	555,022	651,252
	tons	107.2	158.1	241.0	270.9	319.6
Production of—						
Cultured pearls—						
Round and baroque pearls	no.	11,122	11,041	30,512	58,839	65,735
	momme(*a*)	6,121	8,205	18,279	35,892	40,098
Half pearls . . .	no.	26,526	97,324	147,664	232,887	278,637
Manufacturing shell .	tons	19.9	37.0	61.4	108.1	155.4

(*a*) A momme is a pearl weight measurement equivalent to 0.13 oz (avoirdupois).

PEARL-SHELL AND TROCHUS-SHELL: PRODUCTION STATES AND NORTHERN TERRITORY, 1961–62 TO 1965–66

('000 lb)

	1961–62	1962–63	1963–64	1964–65	1965–66
Pearl-shell(*a*)—					
Queensland(*b*) .	860	788	578	645	585
Western Australia(*c*)	801	782	542	310	359
Northern Territory(*b*)	147	115	11	12	11
Australia . .	(*d*) *1,809*	*1,685*	*1,131*	*967*	*955*
Trochus-shell—					
Queensland(*b*) .	457	357	142	69	24

(*a*) Includes manufacturing shell produced from pearl culture operations. (*b*) Season ended January of years shown. Shell taken by Queensland luggers operating in Northern Territory waters is included in Queensland. (*c*) Season ended December of years shown. (*d*) Excludes pearl-shell taken by Japanese pearlers operating in Australian waters. The quantity taken in 1961–62 was 813,000 lb. The Japanese pearling fleet did not operate in Australian waters after 1961–62.

Whales

Only sperm whales were caught during the 1966 season and no quotas were imposed on the catch. Quotas previously set by the Department of Primary Industry were for the baleen species.

WHALES TAKEN: AUSTRALIA, 1962 TO 1966

(*Source:* Fisheries Branch, Department of Primary Industry)

(Number)

	1962	1963	1964	1965	1966
Baleen whales taken—					
Type—					
Humpback	716	87	..	..	..
Blue	..	1	..	..	..
Bryde	..	..	..	..	..
Sei	2	..	..	..	..
Sex—					
Male	404	37	..	..	..
Female	314	51	..	..	..
Total baleen whales taken	*718*	*88*	..	..	..
Humpback equivalent(*a*)	717	89	..	..	..
Quota of humpback whales(*a*)	1,300	550	..	..	..
Sperm whales taken—					
Male	570	587	695	636	595
Female	21	11	15	32	11
Total sperm whales taken	*591*	*598*	*710*	*668*	*606*
Total whales taken	**1,309**	**686**	**710**	**668**	**606**

(*a*) The quotas set in the years 1962 and 1963 by the Department of Primary Industry were in terms of humpback whales, and for this purpose 1 blue whale is taken to be equivalent of 2 fin, 2½ humpback, 6 sei, or 6 bryde whales.

Processing of fish

Quick-freezing is used at sea and ashore to preserve fish before delivery to consumers. The main technique employed in Australia is brine-freezing, as used extensively in the tuna and salmon fisheries.

Fish canning in Australia on a modern scale dates from 1937, before which the only fish canning carried out was on an occasional basis by factories handling other foodstuffs. The main canneries handle tuna (Eden, New South Wales; Melbourne, Victoria; Port Lincoln, South Australia); Australian salmon (Eden, New South Wales; Melbourne, Victoria; Port Lincoln and Adelaide, South Australia; Albany, Western Australia; Margate, Tasmania); snoek (barracouta) (Melbourne and Portland, Victoria; Margate, Tasmania); scallops (Mornington, Victoria); and abalone (Melbourne, Victoria).

Other methods of fish processing include smoking and bottling, but these are undertaken on a minor scale only. Among the few fish by-products produced are small quantities of fish meal.

FISH PROCESSING (EXCEPT FREEZING): AUSTRALIA, 1961–62 TO 1965–66

	1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories	20	25	25	30	29
Fish used(a)—	'000 lb	'000 lb	'000 lb	'000 lb	'000 lb
Whole	18,494	15,447	17,506	16,464	16,778
Headed and/or gutted	6,796	4,972	5,148	5,491	5,835
Estimated live weight equivalent, fish used	*26,500*	*21,300*	*23,600*	*22,900*	*23,600*
Production(b)—					
Canned fish(c)—					
Australian salmon	5,772	3,976	5,335	3,805	4,663
Tuna	3,624	4,201	4,647	5,382	4,915
Other	2,644	2,150	1,167	1,727	2,425
Total, canned fish	*12,040*	*10,327*	*11,149*	*10,914*	*12,003*
Smoked fish	181	286	274	222	237
Fish paste	1,027	1,053	1,212	944	1,105
Fish meal(d)	2,640	2,076	2,222	2,373	n.a.

(a) Fish used for canning (including fish loaf), smoking and the manufacture of fish paste, but excluding the weight of oysters, other shellfish and crustaceans used for canning. (b) Excludes canned crayfish, lobsters, prawns, oysters, and clams, details of which are not available for publication. (c) Includes fish loaf, fish cakes, etc. (d) Excludes whale meat.

Processed crustaceans and molluscs

Quick-freezing is also used to preserve crustaceans and molluscs. The chief technique employed to preserve crayfish and scallops is air blast freezing, while plate contact freezing is being used on an ever increasing scale for prawns, scallops and abalone. Crayfish for the domestic market are usually cooked whole and then frozen, as are some exported crayfish. However, the major proportion of crayfish exports consists of frozen raw craytails. Most prawns for domestic consumption are sold in a whole cooked condition. Some are also exported in this form, after freezing. As a rule, however, the majority of prawn exports consist of green headless prawns, sometimes de-veined, sometimes split in 'butterfly' style, but in all cases frozen into five-pound blocks. Scallops are normally frozen in cello-wrapped five-pound blocks, although packaging of individually frozen scallops in polythene pouches is growing in popularity for local consumer packs. Canned abalone is now packed for the Asian market, as well as abalone soup for domestic and overseas sale. Small quantities of frozen abalone are also now being exported to the United States of America and Asia.

Whale processing

Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

WHALE PROCESSING: AUSTRALIA, 1962 TO 1966

(*Source:* Fisheries Branch, Department of Primary Industry)

		1962	1963	1964	1965	1966
Quantity of whale oil produced—						
Baleen oil	barrels(a)	30,849	3,865	..	..	..
Sperm oil	,,	24,833	23,860	27,534	25,002	24,252
Value of whale oil produced	$'000	1,564	886	620	510	540
Value of by-products (meal, meat, solubles, etc.)	,,	448	138	120	244	398
Total value of products	,,	*2,012*	*1,024*	*740*	*754*	*938*

(a) 6 barrels = 1 ton.

Domestic marketing of fisheries products

Although virtually the whole of the tuna and Australian salmon catches and a large proportion of the snoek (barracouta) catch are canned, the greater part of Australian fisheries production is marketed fresh or frozen.

Marketing arrangements for fresh fish vary from State to State. In New South Wales fish marketing is the responsibility of the New South Wales Fish Authority, which operates the Metropolitan and Wollongong Fish Markets. In other coastal centres of New South Wales fishermen's co-operatives may become registered as local fish markets. Fish for industrial use do not pass through any of these markets. The Queensland Fish Board sells all production on behalf of fishermen in that State, and has branches in eighteen centres, as well as depots at eight others. The Board also purchases fish on its own account to stabilise prices. In Victoria, Western Australia and Tasmania the marketing of fish is undertaken through agents. In South Australia the great majority of the fishermen are members of the South Australian Fishermen's Co-operative Ltd., which handles the whole of their production. Canned fish and frozen fish in the form of consumer packs are marketed mainly by the supermarket-type retail establishments. Oysters are usually sold live in the shell directly to restaurants, or are shelled and bottled before being sent to retailers.

Value of fisheries production

The following tables show details of the values of production of edible fisheries products, pearl-shell and trochus-shell for the years 1961-62 to 1965-66. *See also* the chapter Miscellaneous for an explanation of the value terms used.

FISHERIES PRODUCTION: GROSS VALUE
STATES AND NORTHERN TERRITORY, 1965–66
($'000)

Product	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Fish	5,210	2,231	(*a*)1,776	2,708	(*b*)1,256	491	57	(*a*)13,730
Crustaceans	2,152	1,183	2,332	3,334	12,448	2,557	2	24,008
Molluscs (edible)	2,801	989	106	4	(*c*) 7	252	..	4,159
Pearl-shell(*d*)	..	..	(*e*) 166	..	(*f*) 258	..	(*e*) 2	427
Trochus-shell	..	..	(*e*) 2	..	..	..	..	2

(*a*) Excludes freshwater fish caught in Queensland, particulars of which are not available. (*b*) Not comparable with previous years owing to a change in method of valuation. (*c*) Excludes scallops, particulars of which are not available for publication. (*d*) Queensland figure includes pearl-shell taken by Queensland luggers operating in Northern Territory waters. (*e*) Season ended January. (*f*) Season ended December.

FISHERIES PRODUCTION: GROSS VALUE, AUSTRALIA
1961–62 TO 1965–66
($'000)

Product	1961–62	1962–63	1963–64	1964–65	1965–66
Fish(*a*)	12,147	12,290	13,660	12,187	13,730
Crustaceans	14,959	16,030	15,629	22,386	24,008
Molluscs (edible)(*b*)	2,504	2,808	3,351	3,804	4,159
Pearl-shell(*c*)	(*d*) 722	668	391	371	427
Trochus-shell(*c*)	56	36	10	5	2

(*a*) Excludes freshwater fish caught in Queensland. (*b*) Excludes pipis in New South Wales (no pipis were taken in 1965–66) and scallops in Western Australia. (*c*) Season ended December (Western Australia) or January (Queensland and Northern Territory) of years shown. (*d*) Excludes pearl-shell taken by Japanese pearlers in Australian waters. The Japanese pearling fleet did not operate in Australian waters after 1961–62.

FISHERIES: GROSS AND LOCAL VALUE OF PRODUCTION STATES AND NORTHERN TERRITORY, 1965–66

($'000)

State or Territory	Gross value(*a*)	Marketing costs	Local value(*b*)
New South Wales	10,163	1,608	8,555
Victoria	4,403	606	3,797
Queensland	6,086	498	5,588
South Australia	6,048	754	5,294
Western Australia	(*c*) 15,733	50	(*c*) 15,683
Tasmania	3,300	552	2,747
Northern Territory	61	n.a.	61
Australia	**45,794**	**4,068**	**41,725**

(*a*) Gross production valued at principal markets. (*b*) Gross production valued at place of production. (*c*) Not comparable with previous years owing to a change in method of valuation.

In the following table the local value of fishing and whaling production and the local value per head of population are shown by States. Because the value of materials used in the course of production is not available for all States it is not possible to show a comparison of net values.

FISHERIES: LOCAL VALUE OF PRODUCTION, STATES 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
				LOCAL VALUE ($'000)				
1961–62	6,576	3,482	3,266	2,758	10,582	1,818	106	28,588
1962–63	7,600	3,248	3,844	2,946	11,128	1,770	86	30,622
1963–64	7,856	4,202	4,324	3,436	10,088	1,726	52	31,684
1964–65	8,263	(*a*)3,212	5,298	4,480	15,167	2,194	71	38,685
1965–66	8,555	3,797	5,588	5,294	(*a*) 15,683	2,747	61	41,725
				LOCAL VALUE PER HEAD OF POPULATION ($)				
1961–62	1.66	1.18	2.13	2.82	14.20	5.15	3.84	2.70
1962–63	1.90	1.08	2.47	2.96	14.52	4.94	2.98	2.84
1963–64	1.93	1.37	2.73	3.37	12.81	4.76	1.65	2.88
1964–65	2.00	(*a*) 1.02	3.28	4.27	18.83	5.99	2.09	3.45
1965–66	2.04	1.19	3.39	4.91	(*a*)19.01	7.44	1.68	3.65

(*a*) Not comparable with previous years owing to a change in method of valuation.

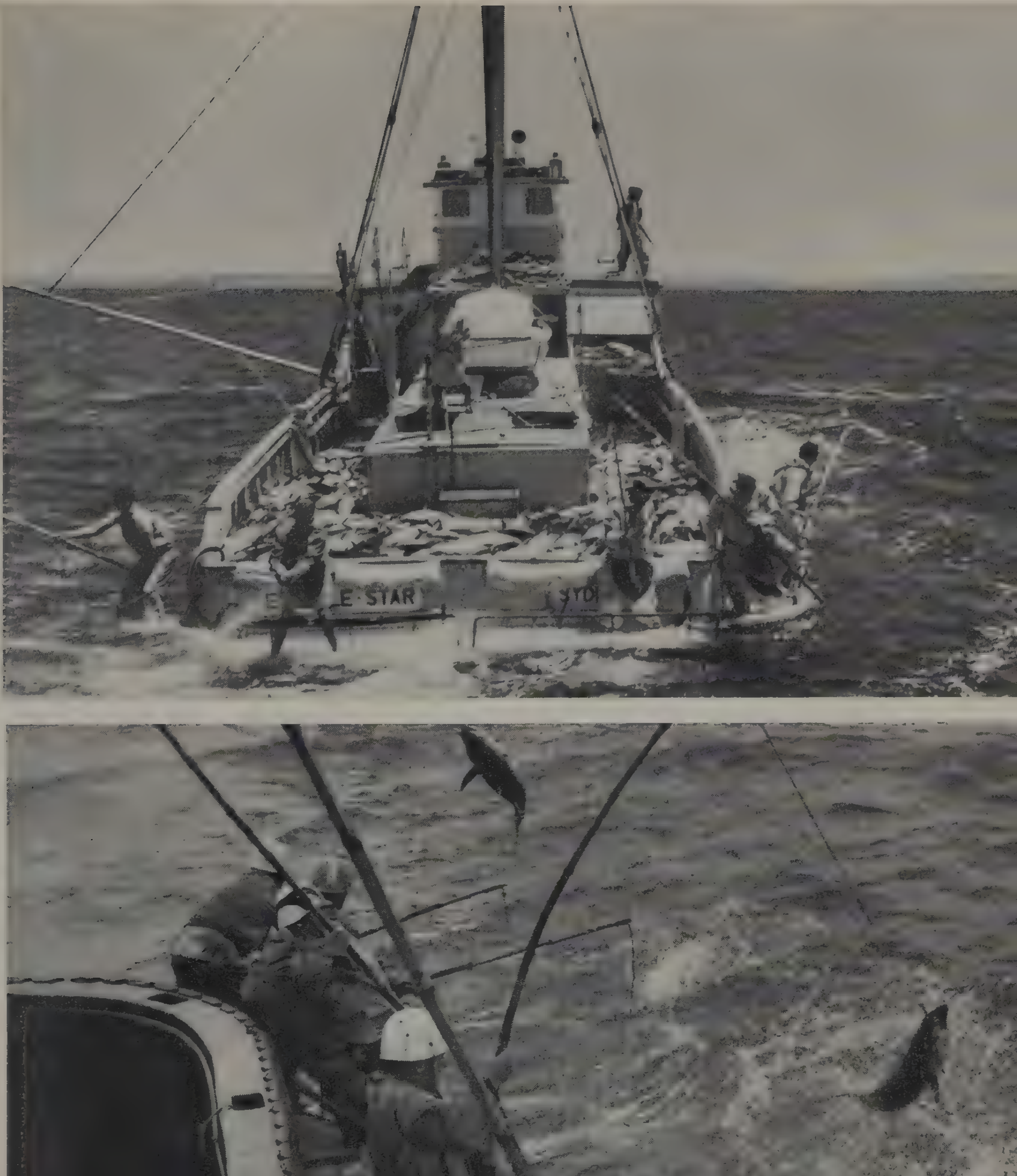


PLATE 49

Pole-and-live-bait tuna fishing

Photos Plates 49 *and* 50*: Australian News and Information Bureau*

The table below gives further details of Australia's overseas trade in edible products in the years 1963–64, 1964–65 and 1965–66.

OVERSEAS TRADE IN EDIBLE FISHERIES PRODUCTS: AUSTRALIA 1963-64 TO 1965-66

	Quantity ('000 lb)			Value ($'000 f.o.b.)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
IMPORTS						
Fresh and frozen(*a*)	40,177	39,965	50,666	10,384	10,671	13,972
Smoked, dried and salted	10,430	8,438	10,516	2,299	2,013	2,551
Potted and concentrated	184	200	194	130	159	206
Canned—						
Herrings	4,376	4,773	6,528	934	1,060	1,384
Salmon	11,642	11,912	11,145	5,475	6,228	6,522
Sardines and pilchards	6,494	6,341	6,759	1,967	2,003	2,228
Tuna	497	316	216	149	90	65
Other fish	1,192	1,581	1,973	264	461	579
Crustaceans and molluscs	887	1,026	1,527	580	756	1,096
Total canned	*25,087*	*25,949*	*28,148*	*9,368*	*10,598*	*11,874*
Products not elsewhere included	73	1,643	1,599	13	581	811
Grand total	**75,952**	**76,196**	**91,123**	**22,194**	**24,023**	**29,414**
EXPORTS (Australian produce only; excludes re-exports)						
Fresh and frozen(*b*)—						
Fish	3,338	2,725	4,857	433	330	782
Crustaceans and molluscs—						
Crayfish tails	9,121	7,801	9,735	10,931	13,600	18,079
Prawns	3,990	2,270	1,822	2,843	1,875	1,616
Other		2,629	2,618		1,420	1,367
Boiled and frozen crustaceans and molluscs		625	2,194		521	1,964
Prepared and preserved—						
Fish	202	246	277	47	93	97
Crustaceans and molluscs	87	553	884	34	290	458
Products not elsewhere included	20	8	70	28	6	43
Grand total	**16,758**	**16,857**	**22,457**	**14,315**	**18,133**	**24,406**

(*a*) Excludes frozen smoked, which is included in item Smoked, dried etc.. (*b*) Excludes frozen smoked, which is included in item Products not elsewhere included.

Pearls

Pearls valued at $523,000 were imported into Australia in 1965–66. This was 52 per cent less than the value imported in 1964–65 ($1,078,000). In 1965–66 imports of pearls valued at $505,000 (97 per cent of the total value of pearl imports) originated in Japan.

Cultured pearls exported from Australia in 1965–66 were valued at $1,534,000, $235,000 more than 1964–65. In 1965–66 cultured exports consigned to Japan were valued at $1,452,000, 95 per cent of the value of all cultured pearls shipped in that year. The value of natural pearls exported from Australia (excluding re-exports) in 1965–66 was $39,000, an increase of $11,000 compared with 1964–65 ($28,000). In 1965–66 natural pearls consigned to Japan were valued at $29,000, 74 per cent of the value of natural pearls shipped in that year.

Pearl, etc. shell and marine animal oils

Of the pearl-shell exported in 1965–66, 337,000 lb (29 per cent) were consigned to the Federal Republic of Germany, 336,000 lb (29 per cent) to Japan, and 320,000 lb (28 per cent) to the United States of America. Exports of trochus-shell in 1965–66 were 24,000 lb, 89 per cent less than in 1964–65. Imports of shells included quantities of pearl, trochus and green snail shell from New Guinea, Papua and the Pacific Islands, which were subsequently re-exported from Australia.

OVERSEAS TRADE IN SHELLS: AUSTRALIA, 1963-64 TO 1965-66

	Quantity ('000 lb)			Value ($'000 f.o.b.)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Imports—						
Total imports . . .	*166*	*81*	*88*	*32*	*23*	*31*
Exports(*a*)—						
Pearl-shell	1,226	1,121	1,141	402	425	427
Trochus-shell	295	202	24	30	19	2
Other	61	21	18	19	8	8
Total exports . . .	*1,582*	*1,344*	*1,183*	*452*	*452*	*437*

(*a*) Australian produce only; excludes re-exports.

OVERSEAS TRADE IN MARINE ANIMAL OILS: AUSTRALIA
1963-64 TO 1965-66

	Quantity ('000 gal)			Value ($'000 f.o.b.)		
	1963–64	1964–65	1965–66	1963–64	1964–65	1965–66
Imports—						
Whale oil from—						
Japan	527	1,208	1,195	466	1,162	1,084
Norway	..	74	98	..	68	91
Other countries	126	171	88	154	188	123
Total whale oil . . .	653	1,453	1,281	620	1,418	1,298
Cod liver oil	86	81	108	76	79	97
Unrefined fish oils	120	125	82	112	119	76
Other	45	43	21	55	63	28
Total imports . .	*904*	*1,702*	*1,492*	*863*	*1,679*	*1,499*
Exports(*a*)—						
Whale oil	1,253	1,738	1,288	927	864	620
Other	..	..	2	..	..	1
Total exports . . .	*1,253*	*1,738*	*1,290*	*927*	*864*	*621*

(*a*) Australian produce only; excludes re-exports.

CHAPTER 26

MINERAL INDUSTRY

Further detailed statistics and information on the subjects dealt with in this chapter are contained in the annual printed bulletins *Non-Rural Primary Industries* and *Value of Production* issued by this Bureau and in *The Australian Mineral Industry—Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in conjunction with this Bureau, a quarterly publication, *The Australian Mineral Industry*, comprising two parts—Part 1—Quarterly Review and Part 2—Quarterly Statistics. The annual mimeographed statistical bulletins *Mining and Quarrying* and *Minerals and Mineral Products* of this Bureau contain economic statistics of the industry prepared and published as soon as possible after the data have been compiled. Two monthly statistical bulletins *Minerals and Mineral Products* and *The Gold Mining Industry, Australia* are issued also, and other current statistics on mining or mine products are contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*.

Geology

General geology

The greatest part of the area of outcropping rock on the Australian continent is Precambrian in age. These basement rocks form the western and central core of the continent and are flanked by younger Palaeozoic rocks, which, along the eastern edge of the continent, form a belt several hundred miles wide extending from north Queensland to Tasmania. Mesozoic sediments overlie large areas of the continent and reach their greatest development in central Queensland. Cainozoic rocks occur mainly in the southern parts of Victoria and South Australia and as residual basalt cappings over an extensive area of the Palaeozoic rocks of eastern Australia.

Economic geology

Minerals of economic significance occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralisation is perhaps more varied, but the Palaeozoic deposits now being worked are in general smaller than those found in Precambrian rocks. Most of Australia's metallic mineral deposits occur within two broad regions, a region of Precambrian rocks in the west and central areas of the continent and a region of younger Palaeozoic rocks in the east. This situation is especially true in the case of the larger base metal deposits and also for smaller deposits of metallic minerals.

The major deposits of metallic minerals, including iron ore, lead, zinc, silver, copper, uranium, and gold, are contained in the Precambrian rocks of the Australian shield. Smaller deposits of tin, tungsten, tantalum, mica, beryllium, manganese, and cobalt are also contained in these rocks.

The mineralised Palaeozoic rocks contain major deposits of gold, now mostly worked out, and a few large copper and lead-zinc-silver occurrences. Smaller amounts of tin, tungsten, molybdenum, bismuth, and other metals also occur in these rocks.

Outside these two main categories, however, there are some metallic mineral deposits of considerable economic importance which were formed during the Tertiary Period. These include bauxite which occurs as a surface capping over various rocks, mostly of Mesozoic age. Extensive deposits of bauxite occur at Weipa on Cape York peninsula in north Queensland, at Gove on the north-eastern tip of the Northern Territory, in the Darling Range in Western Australia, and near Kalumburu in the north-west of Western Australia. These deposits are the result of a long period of weathering.

Mineral sands, another important exception, contain rutile, zircon, ilmenite, monazite, and other minerals, and are particularly well developed on the central and northern New South Wales coast, southern Queensland and south-western Western Australia. The deposits of the eastern States are considered to be derivatives of Mesozoic rocks. The Western Australian deposits are thought to be derivatives of the Precambrian granites of the Australian shield.

Occurrences of fuel minerals (coal, oil and natural gas) are characteristically located in former sedimentary basins. Large areas of Australia are covered by these basins, and more than twenty major sedimentary basins have been identified on the Australian mainland. In addition, sedimentary basins are known to exist in off-shore areas adjacent to the Australian coast. The individual basins range in area from 4,000 to 510,000 square miles and contain marine and continental sedimentary rocks ranging in maximum thickness from 1,000 to about 50,000 feet and including rocks of all ages from Proterozoic to Palaeozoic.

Deposits of black coal in Australia are mainly of Permian age and are located in sedimentary basins in the coastal areas of the eastern States. The majority of the New South Wales and Queensland black coal deposits are bituminous in type. The extensive brown coal deposits of Victoria were formed during the Tertiary Period.

Oil and natural gas have been found in a number of sedimentary basins, but the only proved commercial fields at present are at Moonie, Alton and Conloi in the Surat Basin in south-east Queensland and Barrow Island off the coast of north-west Western Australia. The Moonie deposit is found in rocks of lower Jurassic age. The Barrow Island field, which began production in 1967, is mainly of Cretaceous age, but minor oil shows have been recorded from the underlying Jurassic rocks. Other discoveries of potential commercial significance have been made in the Gippsland Basin, off shore from eastern Victoria (natural gas and oil); at Richmond and Gilmore in Queensland (gas); at Mereenie in the Northern Territory (gas); and at Moomba and Gidgealpa in South Australia (gas).

Of the non-metallic minerals, many, such as clay, sand and silica, etc., are not restricted to the rocks of any particular era and are often polycyclic in nature. However, Precambrian rocks do contain deposits of blue asbestos in Western Australia, limestone and dolomite in South Australia, and mica in the Northern Territory.

Opals are found in the flat-lying sedimentary beds of the Great Artesian Basin in Queensland, New South Wales and South Australia. These opal deposits were formed during the Tertiary Period.

Most of the larger mineral deposits now being mined in Australia are shown in the following table, according to the age of the geological formation in which they are found.

PRINCIPAL AUSTRALIAN MINERAL DEPOSITS

Age of geological formation in which located	Metal or mineral	State or Territory	Locality
Precambrian (more than 520 million years old)	Copper	Queensland	Mount Isa
		Northern Territory	Tennant Creek
	Gold	Western Australia	Kalgoorlie and other localities
	Iron	South Australia	Middleback Ranges
		Western Australia	Yampi Sound and Pilbara
	Lead-silver-zinc	New South Wales	Broken Hill
		Queensland	Mount Isa
Palaeozoic (between 200 and 520 million years old)	Black coal	New South Wales	Hunter Valley, Lithgow, South Coast
		Queensland	Kianga–Moura, Baralaba, Bowen, etc.
		Western Australia	Collie
	Copper–gold	Queensland	Mount Morgan
		Tasmania	Mount Lyell
	Lead–silver–zinc	Tasmania	Mount Read and Rosebery
	Tin (lode)	Queensland	Herberton
		Tasmania	North-east of State
	Tungsten	Tasmania	King Island and north-east of State
Mesozoic (between 75 and 200 million years old)	Black coal	Queensland	Ipswich
		South Australia	Leigh Creek
	Manganese	Northern Territory	Groote Eylandt
Cainozoic (less than 75 million years old)	Bauxite	Queensland	Weipa
		Western Australia	Darling Range
	Brown coal	Victoria	Gippsland
	Mineral sands(a)	New South Wales	North coast
		Queensland	South coast
		Western Australia	South-west coast
	Tin (alluvial)	New South Wales	Tingha
		Queensland	Herberton
		Tasmania	North-east of State

(a) Derived from granites of Palaeozoic age and sandstones of Mesozoic age in eastern Australia and from granites of Precambrian age in Western Australia.

Mineral resources

Australia is self-sufficient in most minerals of economic importance and much more than self-sufficient in some. The following table summarises, in a general way, known reserves and production of the principal metals and minerals in relation to Australian consumption of these commodities and present export availability. Many qualifications are necessary to a simple summary of this kind and the table should be read in conjunction with the following detailed notes on principal minerals.

RESERVES OF MINERALS: AUSTRALIA

(*Source:* Bureau of Mineral Resources, Geology and Geophysics)

Production	Reserves adequate	Reserves uncertain	Reserves negligible
Production sufficient for domestic demand and exports	Barite Bauxite Cadmium Coal (black) Copper Gold Gypsum Iron ore Lead Manganese ore (metallurgical) Mineral sands(*a*) Nickel(*b*) Opal Salt Silver Tin Tungsten Zinc	Beryl Talc Tantalite	
Production sufficient for domestic demand	Clays (except light grade china clay) Coal (brown) Dolomite Felspar Limestone	Glass sands Sillimanite	
Production not sufficient for domestic demand	Lithium minerals Sulphides (as source of sulphur)(*c*)	Abrasives Antimony Bentonite China clay Chromite Cobalt Diatomite Fluorite Magnesite Manganese ore (chemical) Mineral pigments Petroleum Phosphate rock Platinum	Asbestos (chrysotile) Bismuth Molybdenum
Production nil . .	Magnesium Potassium salts (from alunite muds)	Arsenic Crocidolite asbestos*d* Diamonds Graphite Vanadium Vermiculite	Borates Mercury Nitrates Sulphur

(*a*) Ilmenite, monazite, rutile, zircon. (*b*) Mine production commenced mid-1967. (*c*) At a price disadvantage as compared with imported brimstone for the manufacture of sulphuric acid. (*d*) Mine ceased operating during 1966.

Lead-zinc

Since the discovery in 1883 and subsequent development of the ore body at Broken Hill, Australia has been a major producer of lead and zinc. Ore reserves in the Broken Hill area are stated to exceed 17 million tons, and further exploration is being undertaken to extend reserves. Mt Isa, with ore reserves in excess of 27 million tons, is the major lead-zinc deposit in Queensland, and further reserves exist in adjacent leases. In Tasmania substantial lead-zinc deposits are situated at Read-Rosebery near the west coast. In the Northern Territory investigation of a large lead-zinc ore body in the McArthur River area is proceeding.

Copper

The principal deposit of this metal is at Mt Isa, where ore reserves were estimated at 33 to 35 million tons in 1965. Recent discoveries have indicated very large additional reserves at Mt Isa and further exploration and testing is proceeding. Other important deposits are situated at Mt Morgan, Queensland, and Mt Lyell, Tasmania. Small deposits at Ravensthorpe, Western Australia, and Tennant Creek, Northern Territory, have also been developed. In New South Wales exploration at Cobar has resulted in the opening of a new operation at a previously abandoned mine, and ore reserves in this area are now estimated to be in excess of 18 million tons.

Aluminium

As a result of the recent discoveries at Weipa, Gove and the Darling Range, Australia's reserves of bauxite are known to be very large, perhaps the largest in the world. Total reserves in the Weipa region are probably in excess of 2,000 million tons, while the deposits at Gove are reported to contain up to 200 million tons of bauxite. The Darling Range deposit has nearly 80 million tons of proved reserves, with a reasonable indication of a further 100 million tons. In addition, another potentially significant deposit has been identified in the Kimberley district of Western Australia.

Tin

The main deposits of tin now being exploited are in the Herberton field inland from Cairns, Queensland, in north and central Tasmania, in south-west Western Australia, and in the New England area and Ardlethan in New South Wales. Exploration and expansion of known deposits is expected to result in Australia again becoming self sufficient in tin by 1969.

Gold

Australia's gold resources are heavily concentrated in Western Australia, mainly in the Kalgoorlie-Coolgardie area. However, small deposits of gold-bearing ore occur in all States. In addition, gold is commonly obtained as a by-product of other mining activities, particularly copper mining. Gold ore reserves at Kalgoorlie were estimated to be about 12 million tons in 1965, with a gold content of between 3.90 and 5.40 dwt per ton.

Iron ore

In recent years very extensive deposits of iron ore have been discovered in Australia. These discoveries have established Australia as one of the most important iron ore provinces in the world. The largest deposits, in the Pilbara region of Western Australia, are currently being developed. The first shipments to fulfil long-term contracts were made to Japan early in 1966. A deposit in the Savage River region of north-west Tasmania is also under development. These deposits are adequate to supply the estimated needs of the Australian iron and steel industry far into the future, as well as providing a large export availability. Total Australian reserves are estimated to be in excess of 15,000 million tons.

Manganese

Australia's known reserves of manganese, which is highly important for the iron and steel industry, are on a more restricted scale than the deposits of iron ore. The principal deposits currently being worked are in the Pilbara and Peak Hill areas of Western Australia and on Groote Eylandt in the Gulf of Carpentaria. Reserves on Groote Eylandt are believed to be substantial, and testing of the deposits is continuing. The first shipment of ore from Groote Eylandt was made in March 1966.

Tungsten

The main deposits of tungsten ores are in northern Tasmania (wolfram) and on King Island (scheelite). Australia's own requirements are small, and production is principally for export.

Mineral sands

Ores of titanium (rutile and ilmenite), zircon (zirconium) and thorium (monazite) occur in beach sands over extensive areas of the north coast of New South Wales, the south coast of Queensland and the south-western coast of Western Australia. Resources are large and easily workable. Australia's reserves of rutile represent the bulk of the world's reserves of this mineral.

Nickel

Deposits of nickel have been discovered in Western Australia, central Australia and Queensland. At Kambalda, near Kalgoorlie in Western Australia, reserves of 4.5 million tons of 3.6 per cent nickel have been established and mining has commenced.

Uranium

Australia's known reserves of uranium ore were heavily depleted during the years 1953 to 1963. During this period substantial quantities of uranium concentrate were exported to the United Kingdom and the United States. It was estimated during 1964 that total Australian known commercial reserves of uranium ore contained 10,950 short tons of U_3O_8. The Mary Kathleen deposit is estimated to contain in excess of three million tons of uranium-bearing ore.

Coal

Australia has adequate coal resources in relation to present and estimated future needs. These resources include coal of all types, except pure anthracite. The table below shows that the major part of the black coal reserves is bituminous. Australia's coal reserves are concentrated mainly in the mainland eastern States. The bituminous coal is located mainly in New South Wales and, to a lesser degree, in Queensland; Victoria has very substantial brown coal reserves in the Latrobe Valley.

AUSTRALIAN COAL RESERVES

(*Source:* Joint Coal Board, Eighteenth Annual Report, 1964–65)

State	Type of coal	Reserves (in million tons)	
		Measured and indicated	Inferred
New South Wales . .	Bituminous	2,951	Very large(*a*)
Queensland . . .	Bituminous-sub-bituminous	1,243	Very large(*a*)
Western Australia . .	Sub-bituminous	282	1,597
South Australia . .	Sub-bituminous	49	Very small
Tasmania	Bituminous	Very small(*b*)	137(*c*)
Victoria	Bituminous	20	11
Victoria	Brown	54,700	43,000
South Australia . .	Lignite	530	. .

(*a*) Inferred reserves are more than 10,000 million tons. (*b*) Measured reserves in Tasmania amount only to several thousand tons. (*c*) This figure includes both indicated and inferred reserves.

Crude petroleum

Continued exploration is slowly accumulating evidence that Australia may possess significant resources of petroleum and natural gas. The Surat Basin (Moonie) in south-east Queensland and the Barrow Island field are Australia's only existing commercial oil fields. Other possible commercial fields have been discovered, however, the most important being off-shore Victoria.

Natural gas

Several discoveries of natural gas deposits have been made in Queensland, Western Australia, Northern Territory, South Australia, and off-shore Victoria. In some areas reserves are extensive but commercial development will depend on the availability of markets and related capital costs. Two major offshore wells Gippsland Shelf Nos 1 and 2 were completed as potential gas producers; together they constitute the Barracouta natural gas field which is to supply natural gas to Melbourne. There are indications that the Sydney-Newcastle-Wollongong area will also be supplied with natural gas within a few years, but its source has not yet been determined.

History

The mineral industry has been an important factor in the growth of the Australian economy since the middle of the nineteenth century, when the discovery of gold attracted population to Australia and thus provided a valuable impetus to economic development. Over the years the mineral industry has been a substantial earner of foreign exchange, and has in general provided ample supplies of raw materials for Australia's developing manufacturing industries. In addition, earnings from mineral production have provided capital for the development of important manufacturing industries such as iron and steel production.

The history of mineral discovery and development in Australia, however, has not been one of continuous growth, and the growth of the industry may be divided into several episodes of activity which to some extent overlap. Probably the first mining in Australia was for coal, following discoveries in the northern and southern portions of the Sydney coal basin in 1796 and 1797. Metal mining first began in the 1840's in South Australia, where small deposits of silver-lead and copper were mined. In 1851 Edward Hargreaves discovered gold near Bathurst, New South Wales, and shortly afterwards several other gold strikes were made in Victoria and Queensland. Thus began the first gold-rush in Australian history, and a rapid development of gold mining followed. Gold production for the ten years 1851–1860 was nearly 25 million ounces. However, by the mid-1860's gold mining had declined and the average annual gold production fell to less than 2 million ounces.

Subsequently a number of important discoveries of other minerals were made, and the development of these deposits revitalised the mining industry. These finds included the discoveries of copper, tin and lead-zinc from 1870 to the late 1890's (including Mount Bischoff in 1871, the Broken Hill Lode in 1883 and Mount Lyell in 1890) and the gold discoveries in Western Australia, beginning about 1884 (including Coolgardie 1892 and Kalgoorlie 1893). These discoveries were followed by large increases in the production of gold, silver-lead, copper, tin, and coal. Indeed, for a considerable period prior to 1900 Australia was the major gold-producing country in the world. In addition, from 1890 to 1910 Australia was the leading tin-producing country. This resurgence of the mineral industry, which began in the late 1880's, reached a peak in 1907 with a value of output being achieved which was not surpassed until 1937.

During the period 1908 to 1931 the industry underwent a period of decline, with a concomitant reduction in mineral exploration activity in Australia. This reduction has been attributed to the rapid expansion of the gold mining industry in South Africa about this time. British mining capital which had been channelled into Australia was diverted to another area of the world, and the limited amount of local capital was reserved mainly for agricultural and other less speculative activities. Despite this, a few very important mineral discoveries were made—the Mount Isa lead-zinc deposit in 1923 (and subsequently the copper deposit in 1929–31) and the Aberfoyle tin and wolfram deposits in 1926. During the period 1931–1941 the mineral industry experienced a period of recovery. Major production increases in gold and coal occurred for a short period. However, during the latter years of the second World War another period of decline occurred and gold production fell once again.

The immediate post-war period saw the beginning of a major era of expansion and diversification of the industry, which has continued, with little interruption, to the present. Since 1950 the value of mining and quarrying output has doubled, while the output of manufacturing industries processing and treating minerals has expanded even more rapidly. The expansion of mineral processing in Australia (smelting and refining of metals, the processing of non-metallic minerals, etc.) is one of the most important features of the post-war expansion of the industry. A considerable part of the diversification and development which has occurred, or which is under way at present, can be attributed to the number of important mineral discoveries which have been made in Australia in the post-war period.

These discoveries include the following major finds:
Uranium—Mary Kathleen (Qld), Rum Jungle and South Alligator River (N.T.);
Bauxite—Weipa (Qld), Gove (N.T.), Darling Range (W.A.), Kalumburu (W.A.);
Iron ore—Pilbara (W.A.), Savage River (Tas.);
Manganese—Groote Eylandt (N.T.);
Nickel—Kambalda (W.A.);
Oil and gas—Moonie, Roma area (Qld), Barrow Island, Gingin and Yardarino (W.A.), Mereenie (N.T.), Moomba and Gidgealpa (S.A.), off-shore Gippsland area (Vic.).

Developments which have occurred in the last few years have important implications for the future of the industry. Most attention at present is being focussed on the large iron ore deposits which have been discovered, the expansion of the aluminium industry, the revitalisation of the coal mining industry, and the results of an increasing rate of exploration, particularly petroleum exploration. One notable feature of these recent developments is that the industry is becoming much more involved in export trade, and its contribution to export earnings is expected to increase considerably in the next few years. Japan has emerged as the major market for Australia's minerals.

Administration

For all practical purposes all mineral rights in Australia are vested in the Crown. In the States, sovereign rights are held by the State Governments with respect to mineral resources within their boundaries. In the Territories of the Commonwealth these rights are vested in the Commonwealth Government. The Commonwealth Government is able also to influence overall development and production activity in the mineral industry by virtue of its statutory powers with respect to international trade, customs and excise, taxation, and loan raisings. Certain specially formed bodies such as the Joint Coal Board and the Australian Atomic Energy Commission have been given administrative responsibility in defined areas.

Control of mining

Each State or Territory in the Commonwealth has its own mining Acts or Ordinances and regulations governing the prospecting for and working of mineral deposits. These Acts, etc. are similar in principle, but differ in detail. They all make provision for the following tenures.

(i) The holding of a miner's right which gives the holder the right to prospect on Crown land, and to use the timber and water necessary for his operations. The miner's right does not give the power to remove or sell any mineral.

(ii) Small mining leases, having a maximum area of about 100 acres, which necessitate the payment of rent and, in most cases, a royalty. There is usually no limit on the number of such leases which may be held by any one person, partnership, private or public company. In practice a restriction is imposed by the requirement that a lease must be continuously worked, or that work to a given value must be done annually, but exemption from the labour requirements may be obtained under certain circumstances. The exemption is given for limited periods only, and where the labour requirements are not met and exemption has not been granted any person may apply for forfeiture of the lease in his favour. If the rental is not paid the lease is forfeited.

Provision is also made in the various Acts and Ordinances for prospecting areas, claims, etc. Such areas, claims, etc. are all quite limited in size and from the practical viewpoint are cheap forms of mining lease which carry limiting powers relating to the removal of minerals. A very large enterprise may take the course of acquiring mining titles by negotiation with the appropriate Minister for Mines and having the agreed terms and conditions embodied in an Act of the State Parliament. This method of acquisition has been used in several cases where the leasing company undertook an obligation (such as the erection of a large treatment works) in return for leases over large areas for a long period, and has become more common in recent years, particularly where very large-scale capital intensive projects are involved (e.g. iron ore in Western Australia, coal and bauxite in Queensland, bauxite in the Northern Territory).

The following table sets out particulars of the areas occupied under mining Acts and Ordinances in the several States and Territories for the period 1962 to 1966. Further details of the various types of mining lease and licence are given in Year Book No. 48, pages 94–5.

AREAS OCCUPIED UNDER MINING ACTS AND ORDINANCES: STATES AND TERRITORIES, 1962 TO 1966

('000 acres)

Year	N.S.W. (*a*)	Vic.	Qld (*b*)	S.A. (*a*) (*b*)	W.A. (*c*)	Tas. (*b*)	N.T.	Total (*d*)
1962 . .	492	55	2,335	5,364	166	45	38	8,495
1963 . .	425	46	2,185	7,894	201	44	62	10,857
1964 . .	956	50	2,097	7,894	221	42	61	11,321
1965 . .	1,015	60	2,494	6,621	263	41	61	10,555
1966 . .	1,083	84	2,591			45		

(*a*) Year ended 30 June. (*b*) Excludes lands held under miners' rights and dredging claims. (*c*) Excludes holdings under miners' rights. (*d*) Excludes Australian Capital Territory.

Control of exploration

Following the introduction of large-scale modern prospecting methods (particularly air-borne prospecting), small prospecting areas were found to be unsuitable, and steps have been taken in the States and Territories to ensure the availability of large areas for prospecting by interested persons. Large areas may be made available in either of the following ways:

(i) by the Minister of Mines withdrawing an area from the provisions of the Mining Act and giving an informal agreement that the prospector would have preference in applying for titles to leases within the area; or

(ii) by provision within the Mining Acts or Ordinances for the issue of authorities to prospect over an area defined by a written agreement which also sets out provisions as to the amount of money to be spent, methods of prospecting, tenure of the agreement, etc.

The tenure of such areas is limited, usually to one or two years only, and, if renewed for a further period, is only over an area selected from the larger area as a result of work done during the life of the initial agreement. Neither form of prospecting concession gives the holder any rights over, or authorities to prospect on, land already held under a mining title within the agreed area. Unless specifically stated in an agreement, the discovery of minerals, whether inside or outside an area covered by an authority to prospect, gives the discoverer no legal rights except the right to apply for a mining lease over the area in which the discovery was made. Suitable prospects are converted to mining tenements by making application for lease under the appropriate mining Act.

The above discussion refers in general to the exploration for all types of mineral deposits in Australia. Additional information relating to the search for petroleum is given below.

Control of petroleum exploration

On-shore. In Australia, all petroleum on or below the land is, and shall be deemed always to have been, the property of the Crown. Consequently, full control of petroleum mining rights is vested in the Government or Administration of each State or Territory. Any company, syndicate, or individual proposing to join in the search for petroleum must first satisfy the Government concerned that the necessary financial resources are available to carry out exploration activity.

The names given to different types of exploration permits differ with variations in petroleum legislation from State to State, but there are essentially two basic forms of authorisation for exploration: (*a*) permit for surface survey; (*b*) licence for exploratory drilling (does not apply in the Northern Territory).

In most States the minimum permit area is 1,000 square miles and up to a maximum area of 10,000 square miles in the Northern Territory. There is no limit in most States on the number of permits that may be held by one company, syndicate or individual. The term of the initial permit varies between States from one year to five years, but in all cases there is provision for extensions with a maximum in most States of ten years and in the Northern Territory of fifteen years. A bond must be lodged, and in some States rent is payable. All permits contain obligations to carry out certain exploration work with a general provision that survey must be started within three to six months after a permit is granted.

In most States the maximum licence area is 200 square miles (in Papua-New Guinea it is 2,500 square miles) with no limit to the number of licences that may be held. The term of the initial licence varies from State to State and ranges from two to five years. Extensions are permissible with a maximum term ranging in most States from six to ten years. A bond is required in most States, and some States also charge a fee. All States charge a rental ranging from 10c to $13 a square mile per annum. The obligations of a licence require a company, syndicate or individual to carry out more detailed survey work than at the permit stage and may also require a minimum drilling programme.

If exploration is successful a lease may be granted which gives the right to produce petroleum. The maximum lease area is 100 square miles, except in the Northern Territory where the limit is 1,000 square miles and in Papua-New Guinea where it is 500 square miles. In most States there is no limit to the number of leases that may be held. When a lease is granted the remaining portion of the licence area in which a lease is situated must in most cases be surrendered to the Crown, but surrender clauses vary from State to State.

The initial term of a lease in most cases is twenty-one years, and the lease may be renewed for a similar period. Also, one of the general obligations of a lease is that drilling for production must be commenced within six months. In some States the appropriate Minister has jurisdiction over the processing and marketing of the oil.

Legislation in most States requires the payment of rent at the rate of $20 ($30 in the Northern Territory and Papua-New Guinea) a square mile per annum, but this is deductable from any royalties payable on commercial production. All States and Territories have provisions requiring the operating company to guard against wasteful and dangerous practices and make provision for field development in accordance with sound oilfield practice.

Off-shore. Federal and State Ministers and Attorneys-General began a series of conferences in 1963 to determine the extent of their respective jurisdictions over rights to prospect for petroleum in Australian off-shore areas. In 1965 it was announced that agreement had been reached between the Federal and State Governments on a system of joint legislation to control and safeguard the exploration for, and the exploitation of, the petroleum resources on the territorial sea-bed and on the outer continental shelf. The continental shelf is described as submerged land not exceeding 200 metres in depth or beyond that limit to where the depth of the superjacent waters admits of exploitation of the natural resources of the shelf. After further conferences, and consideration of representations made by the off-shore exploration companies, it was announced in April 1967 that it was expected that legislation would be presented to the several Parliaments before the end of 1967.

Under the draft legislation the State Governments administer the legislation and collect all rents and fees. Granting of tenements is subject to approval by the Federal Government in so far as its constitutional responsibilities are concerned, e.g. external affairs, defence, customs, and navigation. Standard royalties (10 per cent of value of production at the well-head) are divided on a 40–60 basis between the Federal Government and the adjacent State. Over-ride royalties, if applicable, and all rents and other fees are retained by the adjacent State.

The draft off-shore legislation provides for a two-stage system of granting authorities to explore and produce. A permit covers all stages of exploration, including drilling. A licence (equivalent to a lease on land) for production is issued for twenty-one years,with the licensee having the right of extensions for a further twenty-one years. Further extensions may be granted. The standard royalty of 10 per cent (plus over-ride royalty, if applicable) is payable for the first twenty-one years. Royalty rate for the whole of the second twenty-one year period will be fixed by the Parliaments at or before the time of granting a renewal, and in the absence of Parliamentary action to fix a new rate the previous rate will continue to apply for the period of the licence.

There is provision for the establishment over off-shore areas of a graticular system of block areas. The size of each graticular block is five minutes of arc of latitude by five minutes of arc of longtitude. This results in graticular blocks ranging in area from a little over thirty square miles in northern Australia to approximately twenty-five square miles in southern Australia. Reduction in size is due to the fact that minutes of latitude decrease in length between the Equator and the South Pole. The maximum permit area is 400 blocks (approximately 10,000 square miles). There will be no statutory limitation on the number of permits which may be granted to any individual company. Permits will be issued for an initial period of six years with rights of renewal for further successive periods, each of five years, subject to satisfactory compliance with the conditions of the permit and to the permittee's surrendering half of the effective permit area at the end of each period. Furthermore, the draft legislation will include discretionary powers for the Minister to modify the requirement for compulsory reduction if this would result in a permit area being reduced below sixteen blocks (i.e. approximately 400 square miles).

Following a discovery of petroleum within a permit area the permit holder will be asked to nominate a block which will then become the centre of a group of nine blocks, called a location, The permit holder has the option of applying for a licence over five of the blocks (an area of approximately 125 square miles), on which a standard royalty of 10 per cent is payable, with the remaining four blocks reverting to the Crown, or of taking all or some of the additional four blocks (making a total area of up to 225 square miles) on payment of an additional over-ride royalty on all blocks taken up at the location. In the latter event, separate licences are granted over the five and four (or less) blocks, respectively. The rate of over-ride royalty will be negotiable between the adjacent State or Territory and the permittee within a range of 1 per cent to 2½ per cent. Where locations consist of less than nine blocks they will be split evenly between the permittee and the Crown if the number of blocks within the location is even, and the odd block will be available to the permittee if the number is uneven. The permit holder has at least two years, which may be extended to four years, in which to make his selection. Graticular blocks not selected by the permit holder will be excised from the permit area and may be disposed of by State or Territories by tender. Existing tenements which have been previously issued by States or Territories will be honoured wherever possible.

Petroleum prospecting or exploring leases: areas occupied

AREAS OCCUPIED UNDER AUTHORITIES TO PROSPECT OR EXPLORE FOR PETROLEUM: STATES AND NORTHERN TERRITORY, 1962 TO 1966

('000 acres)

Year	N.S.W. (*a*)	Vic.	Qld	S.A. (*a*)	W.A.	N.T.	Total
1962 .	127,658	53,310	563,795	199,409	471,856	67,366	1,483,394
1963 .	175,026	53,345	464,567	228,235	441,795	160,498	1,523,466
1964 .	156,543	53,345	379,562	228,235	529,594	147,839	1,495,118
1965 .	105,853	31,201	324,205	221,059	491,670	120,130	1,294,118
1966 .	113,276	31,174	389,252	224,226			

(*a*) Year ended 30 June.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally accepted practice. In Australia the responsibility for mineral royalties is largely a State concern, and all States except Tasmania currently collect some form of mineral royalty payments. In the past most States have relied on an established system of standard rates which were uniform for all producers of any particular mineral in the State concerned. These charges were either a fixed monetary amount per ton (e.g. 5c per ton on gypsum mined in New South Wales) or an *ad valorem* royalty (e.g. 1.5 per cent of gross value of gold produced in New South Wales).

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large scale developments. These royalty rates may vary depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by State Governments in recent years are shown in the table below.

MINERAL ROYALTY RECEIPTS

STATES(a) AND NORTHERN TERRITORY, 1961–62 TO 1965–66

($)

State or Territory	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales .	2,901,734	1,633,640	5,090,622	19,946,772	24,317,168
Victoria . . .	(b) 76,732	(b) 85,004	(b) 94,072	(b) 39,996	71,072
Queensland . .	727,688	486,938	642,560	1,201,264	1,183,046
South Australia . .	789,310	756,156	895,540	962,668	985,560
Western Australia .	239,454	248,646	243,182	291,354	478,295
Northern Territory .	65,960	61,982	68,682	80,894	88,727

(a) No mineral royalties are collected in Tasmania. (b) Includes, in addition to mineral royalty receipts, mine-tailing licences and rents.

Control of exports

The Commonwealth Government maintains export controls over certain minerals and metals. These controls are enforced by means of Customs (Prohibited Exports) Regulations as amended from time to time by Statutory Rules. The Commonwealth authorities having jurisdiction over mineral and metal exports, together with the relevant products, are listed below. A clearance to export is needed in each case.

Department of National Development—iron ores, beneficiated iron ores and iron concentrates; mineral sands in all forms (including concentrates) containing zircon, rutile or ilmenite; lithium ores and concentrates; manganese ores; beryllium ores and concentrates.

Department of Primary Industry—phosphate rock, phosphate and superphosphate, and fertilisers containing phosphate or superphosphate.

Australian Atomic Energy Commission—uranium and thorium minerals including monazite; uranium, thorium, beryllium, hafnium, and lithium metals, compounds and alloys; hafnium-free zirconium metals, alloys and compounds; very pure calcium metal; nickel metal in certain forms; minerals, raw and treated (including residues and tailings), containing more than 0.05 per cent of uranium or thorium, singly or together.

In addition to these controls which are, in general, of fairly long standing, the Commonwealth Government has imposed export controls on copper and copper-bearing materials in recent years. These controls have been administered by the Department of National Development.

In November 1964, as a result of the closure of the copper smelter at Mount Isa, an emergency ban was imposed on the export of copper and copper scrap. The ban did not include copper concentrates or fabricated copper products. These restrictions were lifted as from 1 September 1965.

Subsequently another ban on the export of copper scrap and copper alloy scrap was announced on 20 December 1965. As from 1 May 1966 the ban was extended to include the following materials from which copper may be obtained—residues, speiss, slag, dross, scale, sweepings, ash, sludge, slime, dust, and wastes. In addition, it was announced that export permits would not be issued for copper and copper alloy cakes, billets and similar shapes produced from scrap.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Commonwealth and of the State of New South Wales to carry out special administrative functions in regard to the New South Wales black coal mining industry. A summary of these functions is given below.

(i) To ensure that coal is produced in the State of New South Wales in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries;

(ii) to ensure that the coal resources of the State are conserved, developed, worked, and used to the best advantage in the public interest;

(iii) to ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades, and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities; and

(iv) to promote the welfare of workers engaged in the coal industry in the State.

Australian Atomic Energy Commission

During 1953 Commonwealth legislation was enacted to set up an Atomic Energy Commission which is responsible, in an overall sense, for the production and utilisation of uranium in Australia. This Act, the *Atomic Energy Act* 1953, superseded the *Atomic Energy* (*Control of Materials*) *Act* 1946, but retains a provision of that Act which provides for the control of substances which could be used for production or use of atomic energy.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. Secondly, it is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. The Commission functions under the direction of the Minister for National Development.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed below.

Commonwealth Government assistance

Assistance provided by the Commonwealth Government takes the form of income taxation concessions, subsidies, bounties, and technical assistance mainly through the work of the Bureau of Mineral Resources and the Commonwealth Scientific and Industrial Research Organization. A table showing direct Commonwealth Government payments to sectors of the mineral industry is given on page 1074.

Income taxation concessions. One-fifth of the net income derived from mining for prescribed minerals in Australia or the Territory of Papua and New Guinea is exempt from tax. The metals or minerals to which this concession applies are as follows: asbestos, bauxite, chromite, emery, fluorspar, graphite, ilmenite, kyanite, magnesite, manganese oxides, mica, monazite, pyrite, quartz crystals (piezo-electric quality), radio-active ores, rutile, sillimanite, vermiculite, and zircon; and ores of antimony, arsenic, beryllium, bismuth, cobalt, columbium, copper, lithium, mercury, molybdenum, nickel, osmiridium, platinum, selenium, strontium, tantalum, tellurium, tin, tungsten, and vanadium.

Income derived from mining principally for gold in Australia or the Territory of Papua and New Guinea is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent of the value of total output.

Income attributable to uranium obtained from working a mining property in Australia or the Territory of Papua and New Guinea, or from the treatment of ore in Australia or the Territory to recover uranium concentrates, is exempt from tax for residents of Australia and the Territory of Papua and New Guinea. The exemption is, however, conditional upon the uranium recovered being owned by the Commonwealth or disposed of to a person approved by the Commonwealth.

Dividends paid wholly and exclusively out of exempt mining income are also exempt from tax.

Valuable assistance has been given in the form of certain taxation concessions to encourage the search for petroleum. Resident investors are permitted, for tax purposes, to deduct from their assessable income all sums paid for shares issued by petroleum exploration companies in respect of application, allotment, and call moneys. These deductions are allowable only if a petroleum exploration company elects to forgo an equivalent amount when, in the event of commercial production, capital expenditure is claimed as a deduction for tax purposes. Most Australian petroleum exploration companies have elected to pass on this benefit to their shareholders. Special deductions for capital expenditure incurred in the discovery and mining of petroleum are allowable to a company deriving income from the sale of petroleum, and products of that petroleum, mined by the company in Australia or the Territory of Papua and New Guinea. The general effect of the deductions is to free the proceeds from the sale of Australian or Territory petroleum and its products from tax until all allowable capital expenditure has been fully recouped. Dividends paid wholly and exclusively out of profits so freed from tax are exempt.

Petroleum search subsidy. In 1957 the Commonwealth Government introduced the *Petroleum Search Subsidy Act* 1957 whereby stratigraphic drilling operations were subsidised to the extent of 50 per cent of cost. The *Petroleum Search Subsidy Act* 1959 widened the scope of operations for which subsidy was offered to include all types of geophysical surveys and off-structure drilling operations. Another amendment in 1961 further widened the scope of the 1959 Act to provide subsidy for test drilling and detailed structure drilling operations. It also provided for the calculation of drilling subsidies on a footage basis as an alternative to the total cost basis. A sum of $10 million was allocated to the petroleum search subsidy scheme for 1962–63 compared with an allocation of $5.4 million in the previous year. Applications for subsidy increased to such an extent, however, that in spite of the increased allocation, the maximum rate of subsidy was reduced from 50 per cent of the allowable cost of approved operations to 30 per cent.

The *Petroleum Search Subsidy Act* 1959–1961 was amended in June 1964 to extend Commonwealth subsidy for a further three years. The *Petroleum Search Subsidy Act* 1959–1964 provides subsidy for approved geophysical surveys and test and stratigraphic drilling operations; bore-hole surveys, off-structure and detailed structure drilling are no longer eligible. As in the previous Act, an applicant may elect to receive subsidy for both types of drilling operations on either a footage basis or a total cost basis. In addition, the production testing of any well approved for subsidy is also eligible for additional subsidy. Under the Act the Minister may vary the rates of subsidy for prescribed operations, but they may not exceed one-half the total cost. The present rates of subsidy for approved operations on a cost basis are 30 per cent for test-drilling and 40 per cent for stratigraphic drilling. The rate for all types of geophysical operations is 30 per cent. The 1959–1964 Act also specifies that exploration for petroleum on the Australian continental shelf is eligible for subsidy retrospective to 1959. The Federal budget for 1966–67 contained an appropriation of $11.9 million for subsidies under the Act. Payments under this Act in each of the years 1962 to 1966 are shown in the table on page 1074.

On 28 October 1964 the Minister announced that action was necessary to limit the burden of the Commonwealth subsidy scheme on the Australian taxpayer in view of the many recent encouraging discoveries of oil and gas which were now providing the incentive to further exploration. To this end the Minister announced that operations within certain defined areas around discovery wells and fields would not be approved for subsidy. For the present, projects in the following areas would not be eligible for subsidy: twenty miles from a gas well; thirty miles from an oil well; forty miles from a gas field; fifty miles from an oil field. Specified areas excluded from subsidy payments are periodically announced by the Minister.

Pricing of Australian crude oil. The Commonwealth Government, subsequent to a Tariff Board Inquiry during 1965, established a basic price forAustralian crude oil of $US 2.48 a barrel at the nearest refining centre, plus a differential for the quality of the oil produced, plus an exploration incentive of 75 U.S. cents a barrel. In the case of Moonie crude oil, the quality differential is 27 U.S. cents a barrel, and the price for Moonie crude oil delivered Brisbane is $US 3.50.

In order to ensure that local crude oil is used in Australian refineries, the Government will impose penal import duties of 0.8c a gallon on crude oil and 2.4c a gallon on motor spirit to be paid by those companies which do not take their share of local crude oil. A more detailed discussion on the pricing of Australian crude oil is included on page 1102.

Assistance to the gold-mining industry. Assistance to the gold-mining industry by subsidy was introduced at a time of rising costs in the industry and fixed official world price for gold. Because many producers were faced with the likelihood of closing down, the Government decided to subsidise marginal producers in Australia and the Territories of Papua and New Guinea. Under the *Gold-Mining Industry Assistance Act* 1954 a producer, the value of whose gold output exceeded 50 per cent of the total value of his mine output, was eligible for assistance, subject to certain conditions, on the production of gold from 1 July 1954. The assistance scheme has been reviewed on a number of occasions since the Act was originally passed, and some liberalisations have been approved, including increases in the rates of subsidy payable authorised in amendments enacted on 22 October 1957, 22 May 1959 and 2 June 1965.

The rate of subsidy payable under the original Act was increased under amendments enacted on 22 October 1957 and 22 May 1959. The Act was again amended on 2 June 1965. Under the Act as it now stands the subsidy payable to small producers whose annual deliveries do not exceed 500 fine oz is $6 per fine oz, irrespective of cost of production. For large producers, subject to certain provisions, the rate of subsidy payable is an amount equal to three-quarters of the excess of the average cost of production over $27 per fine oz, with a maximum amount of subsidy of $8 per fine oz. A producer whose deliveries during the year exceed 500 fine oz may elect to be treated as a small producer. In this case the subsidy rate payable per fine oz on total deliveries is $6 reduced by 1c for each fine oz by which deliveries exceed 500 fine oz. The benefit under this provision terminates when deliveries in a year reach 1,100 fine oz. Where a producer receives an amount in excess of the official price of $31.25 per fine oz as a result of sales on overseas premium markets or otherwise, the subsidy payable is reduced by the amount of the excess. Prior to 1 July 1965 subsidy payable to large producers was subject also to a limiting provision that the annual net profit of a producer was not, with the addition of the subsidy, to exceed 10 per cent of the capital used in the production and sale of gold. This limitation has now been removed. The latest amendments also provided for the removal of two other restrictive provisions. A large producer's entitlement to subsidy is no longer subject to reduction if the amount of expenditure on development included in costs exceeds a certain amount, or if the grade of ore being mined falls below a certain level. On the other hand, the Act now provides that subsidy may be adjusted if it is considered that operations are not conducted in accordance with good mining practice. With effect from 1 July 1965 a large producer is able to include in his costs for subsidy purposes one-half of net costs incurred in approved exploratory diamond drilling elsewhere than on his mining property. Payments under the amended Act are to apply to production until 30 June 1970. Payments under the Act commenced in March 1955, and the amounts paid to gold producers in the various States and Territories of Australia in each of the years 1962 to 1966 are shown in the table on page 1074.

The purpose of the *Gold Mines Development Assistance Act* 1962 was to provide assistance to gold producers in Australia and the Territories of Papua and New Guinea not receiving subsidy under the *Gold-Mining Industry Assistance Act* 1954–1962, in order to increase the rate of their development work and so to add to their proved reserves of gold-bearing minerals. In recent years these reserves had declined to the extent that the long-term prospects of the industry were jeopardised. The Act, which applied to 1962–63 and the next two financial years, provided that a development allowance was payable to a mine approved for the purposes of the scheme equal to the amount by which its allowable expenditure on development in a year, as defined in the Act, exceeded a defined base amount which would normally be the average annual amount spent by the mine on development during the three years preceding 1962–63. The payment of allowance was also subject to a number of other conditions and limits provided for in the Act. With the liberalisation of the Gold-Mining Industry Assistance Act from 1 July 1965, the Commonwealth Government decided not to extend the development assistance legislation which, accordingly, lapsed on 30 June 1965.

Assistance to the copper mining industry. After a Tariff Board investigation, assistance was accorded to the industry in 1958, partly by import duty and partly by bounty. The assistance was continued until 31 December 1965. However, because of the unsettled conditions in the industry at this time, it was decided to defer a Tariff Board Inquiry and to continue the existing bounty assistance until 31 December 1966 unless an earlier date of cessation was proclaimed. Under the *Copper Bounty Act* 1958-1966 bounty was payable, subject to specified conditions, on refined copper sold for use in Australia. The rate of bounty was $70 per ton when the overseas price, as determined by the Minister for Customs and Excise, was $580 (£Stg232) or less. When the overseas price rose above $580, the bounty fell by the same extent, so that no bounty was payable when the overseas price was $650 (£Stg260) or more. The Act lapsed on 31 December 1966. Payments under the Act in each of the years 1962 to 1966 are shown on page 1074. The import duty continues in operation, and is imposed on imports of copper when the overseas price falls below $580 a ton, to the extent of $1 for each $1 that the price falls below $580. Including freight and other charges, the landed cost of imported copper is thus expected not to fall below $610 a ton.

Assistance to producers of sulphuric acid and iron pyrites. Following recommendations of the Tariff Board, the *Sulphuric Acid Bounty Act* 1954 was extended for a period of five years from 1 July 1960. Arising from these same recommendations, the *Pyrites Bounty Act* 1960 was enacted on 15 December 1960 to be operative for a period of four and a half years from 1 January 1961. The Acts provide for bounties to be paid, subject to specified conditions, on sulphuric acid produced from prescribed materials of Australian origin and to producers of iron pyrites. In June 1965 it was announced that assistance under these Acts would continue until 31 December 1965. Both of these Acts have now been extended by legislation to 30 June 1969. Payments under the above Acts in each of the years 1962 to 1966 are shown in the table on page 1074.

Payments to producers of phosphate fertilisers. The *Phosphate Fertilizers Bounty Act* 1963–1966 provides for a bounty to be paid on superphosphate and ammoniated phosphate fertilisers manufactured and sold for use in Australia on and after 14 August 1963. The bounty is based on the fertiliser value of superphosphate as measured by its soluble content of phosphorus pentoxide. A standard grade of superphosphate containing 20 per cent, plus or minus 0.5 per cent, soluble content of phosphorus pentoxide qualifies for the full bounty of $6 per ton. When the phosphorus pentoxide content of the superphosphate is less than 19.5 per cent or above 20.5 per cent, bounty is payable at the rate of $30 for each ton of contained phosphorus pentoxide. Bounty in respect of ammonium phosphate is payable at the rate of $30 for each ton of the phosphorus pentoxide content of the ammonuim phosphate. In addition to standard grade superphosphate, 'double' and 'triple' superphosphate, containing 40 per cent and 50 per cent phosphorus pentoxide respectively, are produced in Australia, and bounty on these products is payable at the rate of $12 a ton and $15 a ton respectively. The intention of this Act is to assist consumers of superphosphate (primary producers). The Act is due to expire on 31 October 1969. Payments under the above Act in each of the years 1962 to 1966 are shown in the following table.

COMMONWEALTH GOVERNMENT PAYMENTS TO THE MINERAL INDUSTRY AUSTRALIA, 1962 TO 1966

($)

Year	Petroleum exploration (*a*)	Gold mining (*b*)	Copper mining (*c*)	Pyrites mining (*d*)	Sulphuric acid production (*e*)	Phosphate fertiliser production (*f*)
1962 .	5,930,752	1,351,394	1,372,868	686,680	1,865,314	. .
1963 .	10,519,208	1,614,600	1,297,704	960,334	2,590,248	1,908,252
1964 .	9,121,910	1,382,124	1,065,782	1,320,668	2,046,542	22,772,978
1965 .	10,412,842	1,984,966	5,262	1,113,964	2,138,914	22,604,562
1966 .	10,154,171	3,758,757	1,314	288,319	1,397,679	25,817,516

(*a*) *Petroleum Search Subsidy Act* 1959–1964. (*b*) *Gold-Mining Industry Assistance Act* 1954–1966 and *Gold Mines Development Assistance Act* 1962 (expired 30 June 1965). (*c*) *Copper Bounty Act* 1958–1966. (*d*) *Pyrites Bounty Act* 1960–1965. (*e*) *Sulphuric Acid Bounty Act* 1954–1966. (*f*) *Phosphate Fertilizers Bounty Act* 1963–1966.

Bureau of Mineral Resources, Geology and Geophysics. The functions of the Bureau of Mineral Resources, Geology and Geophysics are to explore, investigate and encourage the development of mineral deposits; to survey and assess the mineral resources of the Commonwealth and its Territories and to initiate and investigate proposals for their development; to interpret the results of completed surveys and recommend ways of remedying or meeting mineral deficiencies and to advise on all aspects of the mineral economy of Australia, including the best utilisation of mineral resources in the national interest; to carry out geological and geophysical surveys and investigations and advise on all aspects of applied geology and geophysics.

The Bureau comprises five branches under the Director: Operations, Mineral Resources, Geological, Geophysical, and Petroleum Exploration. The Operations Branch consists of three sections, Planning and Co-ordination, Publications and Information, and Administrative. It carries out central office functions, including planning and control of programme, assessment of results, co-ordination of activities, liaison, and distribution of information. The Mineral Resources Branch comprises the sections Mineral Economics, Mining Engineering, and Petroleum Technology, and is concerned largely with those aspects of the Bureau's work which involve studies of the mineral industry as a whole, and the preparation of advice and reviews for the Government, industry and the public. The Geological and Geophysical Branches are responsible for the principal field activities of the Bureau, and the operation of observatories; while the Petroleum Exploration Branch is concerned with the administration of the *Petroleum Search Subsidy Act* 1959–1964 and is also engaged in the assessment of sedimentary basins in Australia and its Territories. The establishment of the Bureau is 586 officers, of whom 291 are professional. The budget for the financial year 1966–67 was $17.6 million, of which $11.9 million was provided for payment under the *Petroleum Search Subsidy Act* 1959–1964.

The Bureau maintains in Canberra, Melbourne and Darwin laboratories which are engaged on geochemical, geochronological and petroleum technological studies and basic research into the design and testing of geophysical equipment. The Bureau also maintains a vulcanological observatory at Rabaul and geophysical observatories at Melbourne, Toolangi, Mundaring, Darwin, Port Moresby, Mawson and Wilkes (Antarctica), and Macquarie Island. The geophysical observatories are engaged in magnetic, ionospheric, and seismic investigations and are base stations for field operations.

Commonwealth Scientific and Industrial Research Organization. The activities of this body with respect to the mineral industry are discussed on page 1076 under Research.

State Government assistance

In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

New South Wales. State aid to assist metalliferous mining may consist of grants to assist the prospecting and/or mining for gold and minerals, and for the purchase, removal and installation of mining plant or equipment. A quantity of mechanical equipment is also available in several localities for hire at reasonable rentals to prospectors and small mine operators, and district inspectors have geiger counters and scheelite detectors which are loaned to approved persons. In the year 1965–66 $400,000 was made available for exploration work carried out by the Department and to give financial assistance to exploration groups and prospectors.

Victoria. Loans may be granted to assist prospecting and development or the purchase of machinery for gold mining. The Mines Department has stamp batteries in different parts of the State to crush ore for prospectors at nominal rates. Small mining companies may avail themselves of these facilities. Drilling with diamond, rotary and percussion drills is carried out by the Mines Department for mining companies and for general mineral exploration. A survey of the State's underground water resources is in progress, in conjunction with the development of town water supplies from underground sources.

Queensland. Various forms of assistance to mining are made available by the Queensland Department of Mines. Grants are made from the Consolidated Revenue Fund for use on construction and maintenance of roads in mining areas. Advances are made from the Gold Mining Encouragement Fund for mining development work. This assistance is restricted to gold mines, and advances are repayable from proceeds of the mine, if any. From the Assistance to Metalliferous Mining Fund, plant such as jackhammers, compressors and pumps is purchased and maintained. Such plant is made available on hire, the rental payments being credited back to the fund. Prospecting assistance is made available in approved cases, the rates being $5 a week for a single man and $7 a week for a married man with dependants. This is not repayable. From the Advances to Mining Fund, assistance by way of subsidy is advanced for mine development. This is repayable from proceeds of the mine. The department also maintains a treatment works for tin ores, etc. at Irvinebank, an assay office at Cloncurry and diamond-drilling plants in several parts of the State. The Venus State battery at Charters Towers is available for the treatment of gold-bearing ores.

South Australia. The Department of Mines provides the following services and facilities to the mineral industry: (i) hire of boring plant and mining equipment, boring and testing of mineral deposits, financial loans in approved cases for prospecting and mining development, development of sub-surface water supplies for farming, pastoral, irrigation, and mining purposes, and purchase of basic metal ores from prospectors; (ii) geological examination of mineral deposits, water supply, dam foundation and drainage problems, guidance on mining legislation, and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, chemical and metallurgical and analytical and assay investigation, testing and treatment of ores and minerals, and petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

Western Australia. Prospectors receive assistance of either $15 or $17.50 a week according to the prospecting locality. North of the 26th parallel and within a defined area south of this lying largely outside the agricultural areas assistance is given to the extent of $17.50 a week. In the remainder of the State prospectors receive $15 a week. Provision is also made for the supply of some tools required for prospecting. There are twenty State batteries operating intermittently throughout the goldfields for the treatment of ore from prospectors and small mine-owners at a nominal charge. A cartage subsidy is also granted to such operators sending ore to State batteries for treatment. Provision is made for loans to mine-owners who require assistance to develop mines. The Government also has a drilling scheme, financing mine-owners on a $1 for $1 basis.

Tasmania. The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or de-watering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work, and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry in the form of geological and engineering advice, through ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant. In consequence of a serious fall in world tungsten prices the *King Island Scheelite Agreement Act* 1963 (*No.* 1) was passed. This Act permitted the Tasmanian Government to provide financial assistance until the end of August 1963 so that production of scheelite on King Island could be continued. A second Act (*King Island Scheelite Agreement Act* 1963 (*No.* 2)) gave authority for advances in the period to 31 May 1964. In October 1964 the price of tungsten on world markets moved above the level at which repayments under the subsidy agreement apply, and repayments to the Tasmanian Government, in accordance with a formula related to monthly production, were commenced by the operating company. In April 1966 a final repayment liquidated the remaining liability (the total advanced was $397,910).

Northern Territory. To encourage the development of the mining industry the Northern Territory Administration operates two batteries for the treatment of miners' ores. The batteries are at Tennant Creek and at Mount Wells near Burrundie. The Tennant Creek battery is currently cyaniding the gold in accumulated tailings while the Mount Wells battery is crushing parcels of tin ores and small quantities of gold, lead and copper ores. The crushing charges are subsidised by government grants. In addition, the Administration provides cartage subsidies and financial advances to encourage miners to carry out developmental work. Assistance is also given to the industry by drilling encouraging prospects. Roads and water supply services are provided and maintained for mines under active development throughout the Territory.

Research

Research investigations into problems of mining, ore-dressing and metallurgy are conducted by Governmental bodies, by universities, by private enterprise, and by combined efforts of these bodies. A summary of their functions follows.

Commonwealth Scientific and Industrial Research Organization

Research for the mineral industry by the Commonwealth Scientific and Industrial Research Organization is undertaken mainly in the Divisions of Applied Mineralogy and Mineral Chemistry and in the Ore Dressing Laboratory. Work of a more specifically chemical engineering nature is undertaken in the Division of Chemical Engineering. All of these groups have laboratories in Melbourne. In addition, the Division of Applied Mineralogy has laboratories in Perth and Sydney, and the Division of Mineral Chemistry has a laboratory in Sydney.

The research programme of the Division of Applied Mineralogy is concerned mainly with the production and utilisation of natural and synthetic mineral products. Research is undertaken on cement and concrete, industrial refractories, engineering ceramics, clays, mineral-organic complexes, fillers, foundry materials, and the geochemistry of some economic minerals. The Mineragraphic Investigations laboratory of the Division has become a general reference point in C.S.I.R.O. for examination of minerals and for advice on problems concerning their nature and origin. The Division of Mineral Chemistry is undertaking research aimed at more complete evaluation of Australian minerals and their better utilisation through chemical, electrochemical and metallurgical processes. It includes studies on mineral exploration techniques, chemical upgrading of minerals, and the production of metals, and investigations on processes with possibilities for application in the exploitation of minerals. Work is continuing on the evaluation of coals from all the significant deposits in Australia, and on the technical problems of coal combustion in large power stations. In the Division of Chemical Engineering, projects of particular interest to the mineral industry include studies on the dynamics and automatic control of mineral processing operations such as grinding, classifying and flotation, fluidised-bed techniques, high-temperature extraction metallurgy and metal refining, and the production of high-calorific-value gas by direct hydro-gasification of coal at high pressures and temperatures. The Ore Dressing Investigations laboratory, which is under the joint control of C.S.I.R.O. and the University of Melbourne, undertakes research on mineral processing and has continued to serve industry on problems arising from the processing of particular Australian minerals. In addition, it is collaborating with interested firms in long-term studies on the chemistry of flotation pulps and the assessment of the resistance of ores to grinding.

All C.S.I.R.O. groups taking part in mineral research are in close contact with industry. Several projects are being developed by collaboration between C.S.I.R.O. and Australian firms and a significant proportion of the Organization's mineral research is now carried on with funds provided by industry. A committee set up by the Advisory Council of C.S.I.R.O. is continuing to examine and advise on research needs in the mining and processing industries in the changing environment.

Australian Atomic Energy Commission

The Australian Atomic Energy Commission conducts research at its laboratories at Lucas Heights in Sydney on the development of nuclear power, including research on nuclear materials and on metals and ceramics used for nuclear power. Research conducted by the Commission is discussed in detail in the chapter Education, Cultural Activities and Research.

Australian Mineral Development Laboratories

Research investigations into mineral problems are undertaken by the Australian Mineral Development Laboratories in Adelaide. This organisation is sponsored by the Commonwealth Government, the South Australian Government and the Australian Mineral Industries Research Association (*see* Research by private enterprise next page). These sponsors furnish work for the laboratories, or guarantee finance, in the proportions 25 : 50 : 25 respectively. The laboratories have sections dealing with mineralogy, petrology, chemical analysis, ore-dressing, ceramic and extractive and physical metallurgy, and operations research.

The Baas Becking Geobiological Research Laboratory

In 1965 the Baas Becking Geobiological Research Laboratory was established in the Bureau of Mineral Resources Building in Canberra, under the joint sponsorship of the Commonwealth Scientific and Industrial Research Organization, the Bureau of Mineral Resources, and the Australian Mineral Industries Research Association (*see* Research by private enterprise, page 1077). The broad objective of the research work is to investigate the biological and chemical processes associated with the formation of mineral deposits of the stratiform type.

Initial emphasis is being placed on investigations to establish the relationship of biological factors to the natural physico-chemical environment with particular reference to the possible role of these factors in the formation and transformation of sulphide minerals. Investigations will include the response of micro-organisms to heavy metals; biochemistry and physiology of oxidative and reductive sulphur transformations; role of organisms in the concentration of mineral elements; physico-chemistry of low-temperature mineral synthesis; mobility of sulphides under the influence of temperature and pressure and the interaction of mineral types; and biological leaching of low-grade sulphide minerals.

The laboratory is named after the late Dr L. G. M. Baas Becking, who was one of the first to recognise the possibility that biological, in particular microbial, activity may play an important part in the genesis of sulphide ores. Dr Baas Becking carried out research in this field while on loan to the Bureau of Mineral Resources from the C.S.I.R.O.

National Coal Research Advisory Committee

The functions of the National Coal Research Advisory Committee, which began operating in January 1965, are to report on all coal utilisation research programmes in Australia, and advise the contributing Governments and industry as to the disposition of funds made available for such research. The Commonwealth matches additional funds made available by State Governments and by coal producing and consuming industries. In the first two years of operation, additional funds of $520,000 have been made available in each year for increased coal utilisation research, bringing total expenditure on coal utilisation research in Australia to nearly $2.5 million annually. In association with the setting up of the National Coal Research Advisory Committee, a new company, the Australian Coal Industry Research Laboratories Limited, was formed in late 1965 to take over all the current activities of the Australian Coal Association (Research) Limited, which was financed largely by the coal producing industry. This new company has available additional funds from the coal producing and consuming industries and from State and Commonwealth Governments to permit the expansion of the former work of the Australian Coal Association (Research) Limited in the particular direction of coal utilisation research. The constitution of the Advisory Committee and the establishment of the new laboratories unit have brought into effect the recommendations of the Coal Utilisation Research Advisory Committee which tabled its Report to Parliament in 1962.

University research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

Most large mining and smelting companies have laboratories dealing with their own individual immediate problems. Private industry has formed the Australian Mineral Industries Research Association, which is composed of forty-three members representing a large proportion of the mining, metallurgical and related companies operating in Australia at present. It was set up in 1959 chiefly to represent private industry in the management of the Australian Mineral Development Laboratories, but the Association now finances other research work into geology, mining and ore-dressing at Universities, C.S.I.R.O. and elsewhere. Expenditure for the year 1965–66 was $51,897.

International relations

Because Australia is a large supplier of certain minerals to the rest of the world and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Commonwealth Government takes an active role in international consultations and discussions relating to minerals. The most important international commitments are discussed below.

International Tin Agreement

The First International Tin Agreement (of the post-war period) was in operation for five years from 1 July 1956 to 30 June 1961. This Agreement was subsequently replaced by the Second International Tin Agreement, which came into force provisionally on 1 July 1961 and definitively on 21 February 1962.

This Agreement was for a period of five years and had the following objectives:

(*a*) to prevent or alleviate widespread unemployment or under-employment and other serious difficulties likely to arise from maladjustments between the supply and the demand for tin;

(*b*) to prevent excessive fluctuations in the price of tin and to achieve a reasonable degree of stability of price;

(*c*) to ensure adequate supplies of tin at prices which are fair to consumers and provide a reasonable return to producers; and

(*d*) to provide a framework for the consideration of measures to promote the progressively more economic production of tin, while protecting deposits of tin from unnecessary waste or premature abandonment, thus facilitating expansion in world consumption of tin; and to keep under review the long-term need for the development of new deposits of tin.

The Third International Tin Agreement, which came into force provisionally on 1 July 1966 and definitively on 21 March 1967, contains several additional objectives:

(*a*) to ensure conditions which will help achieve a dynamic and rising rate of production of tin on the basis of a remunerative return to producers, which will help secure an adequate supply at prices fair to consumers and which will help provide a long-term equilibrium between production and consumption;

(*b*) in the event of a serious shortage of supplies of tin occurring or being expected to occur, to take steps to secure an increase in the production of tin and a fair distribution of tin metal at equitable prices.

Although the framework of the Third Agreement is basically that of the Second, objectives have been broadened in line with the principles of the United Nations Conference on Trade and Development (UNCTAD) and, as such, emphasise the need for expansion of export earnings in the developing countries. Thus the emphasis has been shifted from surplus production and export controls inherent in the Second Agreement to one of increased production in the new Agreement.

The Agreement is operated by the International Tin Council, which is made up of the following Governments: Australia, Austria, Belgium, Bolivia, Canada, Czechoslovakia, Democratic Republic of the Congo, Denmark, France, India, Indonesia, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Federation of Nigeria, Spain, Thailand, Turkey, United Kingdom. Member Governments participate as producing or consuming countries. The producing countries hold a total of 1,000 votes, distributed so that each country receives five initial votes and an additional number corresponding to its percentage as laid down by the Agreement. The consuming countries hold a total of 1,000 votes also distributed so that each country receives five initial votes and an additional number proportionate to tonnages. The allocation of votes in each category is periodically reviewed.

The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading on the London Metal Exchange, aims at confining the price within these limits. The buffer stock was established with contributions from producing countries, equivalent to 10,000 tons of metal, wholly made in cash at £stg1,000 a ton; a further £10 million remains on call from the producer members and a standby-credit facility of £10 million from a consortium of banks. Existing buffer stock price range is: ceiling £1,400—must sell; £1,300 to £1,400—may sell; £1,200 to £1,300—no action; £1,100 to £1,200—may buy; floor £1,100—must buy. However, since the Third Agreement came into operation prices have in general been maintained in the range £1,200 to £1,300 in which the buffer stock does not operate.

International Lead-Zinc Study Group

With the cessation of stockpile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious imbalance between world supply and demand for these metals. To meet this problem a series of meetings of interested governments was held, at which Australia was represented. These meetings culminated in the formation of the International Lead and Zinc Study Group which was established in January 1960. The Study Group comprises the following Governments: Algeria, Australia, Austria, Belgium, Canada, Czechoslovakia, Denmark, Finland, France, the Federal Republic of Germany, India, Italy, Japan, Mexico, Morocco, the Netherlands, Norway, Peru, Poland, the Republic of South Africa, Spain, Sweden, Tunisia, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Yugoslavia. The Group provides opportunities for inter-governmental consultations on international trade in lead and zinc and for studies of the world situation in lead and zinc having regard especially to the desirability of providing continuous accurate information regarding the supply and demand position and its probable development.

Tungsten Conference

During 1963 meetings were held by the United Nations *ad hoc* Committee on Tungsten and by the Committee's Technical Working Group to assess the world tungsten situation and to consider methods for dealing with the depressed state of the market, and action has been taken to collate world data. The Working Group recommended that the Tungsten Committee be put on a regular rather than an *ad hoc* basis; this recommendation was adopted by the Committee at its fourth session held in May 1965. The necessity of obtaining comprehensive, uniform and timely world statistics was also formally recognised. However, in view of the recent buoyant marketing conditions for tungsten, no direct action to influence the world market for tungsten has been taken.

Scope and sources of statistics

Scope of statistics

Statistics presented in this chapter refer mainly to mining and quarrying, although data relating to mineral processing and treatment activities are included where appropriate to present a more complete picture of the place of minerals in the Australian economy.

The mining and quarrying industry is defined for statistical purposes as including all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc. Ore-dressing and elementary smelting of metallic minerals (e.g. in the case of gold) and miscellaneous treatment of non-metallic minerals, where these are carried out in an associated plant at or near the mine, are included in the mining industry. However, establishments primarily engaged in smelting and/or refining (including the smelting and refining sections of the large plants operated at Mount Morgan and Mount Isa in Queensland and at Mount Lyell in Tasmania) are excluded from the statistical definition of the mining industry and are classified to the manufacturing industry.

The statistical coverage of establishments engaged in mining is considered to be satisfactory. However, coverage of establishments engaged in the quarrying of construction materials is incomplete in most States. This deficiency is due primarily to the inherent difficulty of obtaining complete lists of quarries (including those operated by government authorities), many of which operate intermittently and in different locations. There is difficulty also in obtaining satisfactory returns from quarries operated in conjunction with some other activity, e.g. roadmaking, brick-works, etc., and quarries operated in conjunction with large construction projects, such as the Snowy Mountains Scheme, are excluded from these statistics. In some States there have been deficiencies also in the collection of data for certain non-metal (excluding fuel) mining industries, mainly because these are outside the fields normally under the administrative control of Mines Departments. Products chiefly affected are clays, loam and silica.

Sources of statistics

Mining industry data (such as employment, costs, value of output, etc.) have been obtained annually since 1952 from the Mining and Quarrying Census. This Census is carried out in collaboration with the several Mines Departments and involves the uniform collection of particulars from all establishments employing on the average four or more persons during the period worked by the mine. A representative specimen collection form is included in the bulletin *Non-Rural Primary Industries*, No. 3, 1964–65. For smaller mines either simplified census returns covering number of persons employed and value of output are collected, or these particulars are compiled from data made available by the Mines Departments. Oil search operations are excluded from the annual census, but the Bureau of Mineral Resources conducts an annual survey of these activities.

Mineral production statistics contained in this chapter consist, in the main, of data from the annual census and official statistics of the Mines Departments of the several States and of the Northern Territory Mines Branch. The particulars shown have been compiled as far as practicable on the standardised basis which has been used in Australia since 1950, and this presentation has involved some re-arrangement of official statistics published by the Mines Departments in some States. These statistics have been supplemented, as necessary, by data obtained from the Statisticians of the several States, the Bureau of Mineral Resources, Geology and Geophysics, the Joint Coal Board, and from several other sources.

Data of imports and exports of minerals and mineral products have been extracted from the official trade statistics compiled in the Commonwealth Bureau of Census and Statistics. Values of Australian oversea trade shown throughout this chapter are expressed as $ f.o.b. port of shipment.

Mineral exploration

In recent years mineral exploration in Australia has expanded considerably compared with earlier periods. Exploration for extensions of known reserves in producing localities has increased, and some important additions to known reserves have been made (e.g. at Mt Isa). In addition, exploration for new deposits has continued and, as outlined earlier, a number of important new finds have been made in recent years.

Some important features of exploration for minerals in Australia in this period have been the uranium exploration boom in the mid-1950's, the expansion of petroleum exploration since 1960, and the even more recent upsurge in general mineral exploration which has been marked by an influx of overseas companies and capital. Currently there is more active mineral exploration being carried out in Australia than at any earlier time.

The pattern of exploration at present is that, in terms of expenditure and footage drilled, exploration for petroleum is the most important activity. Exploration for other minerals, although expanding rapidly, is not on as large a scale as petroleum exploration. The range of minerals sought is diverse, with probably most attention being devoted to the base metals and phosphate rock.

Petroleum exploration

During the post-war period there has been a very great increase in exploration for petroleum in Australia, and this increase has been particularly notable since 1961. In the years 1946 to 1965 more than $358 million was spent on petroleum exploration in Australia and Papua and New Guinea out of a total expenditure to the end of 1965 of almost $370 million. Until recently, exploration was concentrated in the sedimentary basins on the land mass, but increased attention is now being paid to the off-shore areas of the continental shelf, with promising results. Up to the end of 1965 the bulk of expenditure related to exploration in Queensland, Western Australia and Papua and New Guinea. Footage drilled has been greatest in Queensland, Western Australia and Victoria, with footage drilled in Papua and New Guinea being comparatively low. The growth of expenditures and drilling footage over recent years is shown in the following tables. These statistics have been derived from the Bureau of Mineral Resources, Geology and Geophysics. Recent developments in the search for petroleum are discussed on page 1102, and particulars of areas occupied under authorities to prospect or explore for petroleum are given on page 1069.

EXPENDITURE ON PETROLEUM EXPLORATION BY PRIVATE ENTERPRISE AND BY GOVERNMENTS: AUSTRALIA, 1965

Origin of expenditure	Expenditure	Percentage contribution
Private enterprise—	$'000	
Funds of Australian origin	20,409	30.3
Funds of overseas origin	32,706	48.5
Total, private enterprise	*53,115*	*78.8*
State Government departments	711	1.1
Commonwealth Government departments (excluding subsidy payments)	3,824	5.7
Commonwealth Government subsidy payments	9,759	14.4
Total expenditure	**67,409**	**100.0**

TOTAL EXPENDITURE ON PETROLEUM EXPLORATION BY PRIVATE ENTERPRISE AND BY COMMONWEALTH, STATE AND BRITISH GOVERNMENTS TO 31 DECEMBER 1965

Origin of expenditure	Expenditure	Percentage contribution
	$'000	
Private enterprise—		
To end of 1965—		
Funds of Australian origin	118,993	32.2
Funds of overseas origin	174,837	47.2
Total, private enterprise	*293,830*	*79.4*
Government—		
Prior to 1946—		
State Government	3,084	0.8
British Government	50	..
Commonwealth Government—Grants	324	0.1
Other	1,051	0.3
1946 to 1965—		
State and Territory Departments of Mines	6,305	1.7
Commonwealth Government—subsidy payments	42,025	11.4
Department of National Development (excluding subsidy payments)	22,868	6.2
Department of Interior—topographic surveys, oil search	400	0.1
Total, Government	*76,107*	*20.6*
Total expenditure	**369,937**	**100.0**

SUMMARY OF WELLS AND FOOTAGE DRILLED: STATES AND TERRITORIES, 1965

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	T.P. N.G.	Total
Wells drilled(a)	11	9	128	8	37	1	14	1	209
Average total depth of wells drilled . . . feet	4,896	6,634	5,253	8,433	5,394	7,717	4,070	12,015	5,433
Wells completed as potential oil producers	..	..	11	..	14	..	..	..	25
Wells completed as potential gas producers	..	2	12	1	2	..	3	..	20
Wells drilled or drilling over 10,000 feet	..	..	7	2	5	..	2	1	17
Footage drilled—									
Completed wells . feet	48,271	59,116	651,905	49,542	183,786	7,717	56,988	12,015	1,069,340
Uncompleted holes(b) feet	795	10,389	22,089	..	30,812	..	19,764	..	83,849
Total footage drilled	49,066	69,505	673,994	49,542	214,598	7,717	76,752	12,015	1,153,189

(*a*) Number of holes which reached total depth during the year. (*b*) Uncompleted holes means wells suspended or drilling at 31 December 1965.

WELLS AND FOOTAGE DRILLED IN PETROLEUM EXPLORATION STATES AND TERRITORIES TO 31 DECEMBER 1965

State or Territory	To 31 December 1963		1964		1965		To 31 December 1965	
	Wells	Footage	Wells	Footage	Wells	Footage	Wells	Footage
New South Wales . .	69	214,556	14	60,885	11	49,066	94	324,507
Victoria	159	333,618	7	41,595	9	69,505	175	444,718
Queensland . . .	232	1,062,666	156	744,435	128	673,994	516	2,481,095
South Australia . .	106	208,313	14	83,959	8	49,542	128	341,814
Western Australia . .	105	404,193	16	99,972	37	214,598	158	718,763
Tasmania . . .	21	14,000	..	..	1	7,717	22	21,717
Northern Territory .	10	33,169	6	30,266	14	76,752	30	140,187
Papua and New Guinea	43	212,985	1	4,249	1	12,015	45	229,249
Total . . .	..	..	*214*	*1,065,361*	*209*	*1,153,189*	..	..
Cumulative total . .	**745**	**2,483,500**	**959**	**3,548,861**	**1,168**	**4,702,050**	**1,168**	**4,702,050**

Other mineral exploration

As a result of the influx of overseas companies and an increase in exploration by the major Australian mining companies, exploration for minerals other than petroleum is also at a very high level and is expanding rapidly. It has been estimated that this exploration is about equally divided between areas in which mineral discoveries were made fifty to seventy years ago and geologically favourable areas where sub-surface exploration is being carried out for the first time. Statistics relating to this exploration are not available at present, but statistical coverage of these activities is being established and a basic range of statistics will be available shortly.

Mining and quarrying

The mining and quarrying industry is classified into four major groups, namely metal mining, fuel mining, non-metal mining (excluding fuel), and construction material quarrying. Mining and quarrying establishments are classified to these groups and to sub-divisions of these groups on the basis of the product or products of the establishments. This method of classification is straightforward for those establishments which produce only one product, but for mines and quarries which produce more than one product classification is not as simple a matter. Such establishments are classified according to the most important mineral produced in terms of value. Thus a mine producing, say, both tin and tungsten minerals would be classified as a tin mine if tin were the more important product by value, and as a tungsten mine if tungsten were the dominant product. There is, however, one important exception to this rule in that the mining establishment at Mount Isa is classified to the lead-silver-zinc sector rather than to the copper-gold sector.

For mines and quarries which produce more than one product it is not possible to apportion particulars of operations (such as employment, salaries and wages paid, costs) to the minerals produced. In practice, then, these data are recorded only as a total for each mine, and the mine is classified to an industry sector as outlined above.

Statistics relating to the structure of the industry, employment, production costs, value of additions and replacements to fixed assets, and value of output and production are given in the following pages.

Number of mines and quarries

The following tables show the number of mines and quarries which operated in each State and Territory in 1965 and in Australia for the years 1961 to 1965.

NUMBER OF MINES AND QUARRIES: STATES AND TERRITORIES, 1965

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold	17	19	33	..	113	2	9	..	193
Lead-silver-zinc	13	..	4	1	12	1	1	..	32
Copper-gold	14	2	31	4	19	1	4	..	75
Tin	48	4	275	..	21	27	16	..	391
Mineral sands	11	..	5	..	5	..	..	..	21
Other metal	19	2	7	2	17	3	3	..	53
Total, metal mining	*122*	*27*	*355*	*7*	*187*	*34*	*33*	..	*765*
Fuel mining—									
Black coal—									
Underground	88	2	60	..	3	6	..	..	159
Opencut	3	..	4	1	1	..	..	..	9
Total, black coal	91	2	64	1	4	6	..	..	168
Brown coal	..	6	..	..	..	..	..	..	6
Other fuel	..	..	3	..	..	..	..	..	3
Total, fuel mining	*91*	*8*	*67*	*1*	*4*	*6*	..	..	*177*
Non-metal (excluding fuel) mining(*a*)	445	63	104	104	59	26	1	..	802
Total, all mining	*658*	*98*	*526*	*112*	*250*	*66*	*34*	..	*1,744*
Construction material quarrying(*a*)	383	371	52	209	57	118	33	11	1,234
Total, all mining and quarrying	**1,041**	**469**	**578**	**321**	**307**	**184**	**67**	**11**	**2,978**

(*a*) Incomplete, owing to difficulties of coverage. *See* Scope and sources of statistics, page 1079.

NUMBER OF MINES AND QUARRIES: AUSTRALIA, 1961 TO 1965

Industry	1961	1962	1963	1964	1965
Metal mining—					
Gold	295	286	257	246	193
Lead-silver-zinc	27	22	13	20	32
Copper-gold	111	107	98	86	75
Tin	266	344	300	371	391
Mineral sands	21	20	18	20	21
Other metal	85	87	62	56	53
Total, metal mining	*805*	*866*	*748*	*799*	*765*
Fuel mining—					
Black coal	202	198	185	179	168
Brown coal	6	6	6	7	6
Other fuel	..	..	2	3	3
Total, fuel mining	*208*	*204*	*193*	*189*	*177*
Non-metal (excluding fuel) mining(*a*)	755	731	792	756	802
Total, all mining	*1,768*	*1,801*	*1,733*	*1,744*	*1,744*
Construction material quarrying(*a*)	1,056	1,107	1,044	1,148	1,234
Total, all mining and quarrying	**2,824**	**2,908**	**2,777**	**2,892**	**2,978**

(*a*) Incomplete. *See* Scope and sources of statistics, page 1079.

Employment in mining and quarrying

Persons engaged. Statistics of persons employed in the mining and quarrying industry are derived mainly from the annual census of that industry.

Data on the work force employed in the industry are also obtained from the population censuses of Australia. The population census figure for mining and quarrying includes a number of persons excluded from the mining and quarrying census employment figure, e.g. persons engaged in exploration activities, prospectors, head office employees, etc.

In the following table, which shows particulars collected in the population censuses of Australia at 30 June 1947, 1954 and 1961, the numbers of persons whose industry statements were classified to 'mining and quarrying' are shown together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED IN MINING AND QUARRYING: AUSTRALIA
1947 TO 1961

		Census, 30 June—		
		1947	1954	1961
Persons engaged in—				
Mining and quarrying		57,574	62,107	54,401
All primary industries		563,607	560,100	513,286
Total work force		3,196,431	3,702,022	4,225,096
Persons engaged in mining and quarrying as a proportion of—				
All primary industries	%	10.2	11.1	10.6
Total work force	%	1.8	1.7	1.3

An adjustment was made to the 1947 and 1954 industry data by distributing over the range of recorded industry the number of persons whose industry was not stated. No such adjustment was made to the 1961 figures.

The following table is derived from mining census data and shows the average numbers engaged in the various mining industries in each State or Territory in 1965.

MINING AND QUARRYING: EMPLOYMENT(*a*)
STATES AND TERRITORIES, 1965

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold	12	137	103	..	4,108	..	163	..	4,523
Lead-silver-zinc	4,516	..	(*b*)	..	40	(*b*)	..	..	7,269
Copper-gold	239	5	(*b*)	..	108	(*b*)	355	..	2,312
Tin	226	5	513	..	147	488	23	..	1,402
Mineral sands	1,264	..	390	..	346	..	..	..	2,000
Other metal	49	4	(*b*)	401	1,325	(*b*)	78	..	2,251
Total, metal mining	*6,306*	*151*	*4,093*	*401*	*6,075*	*2,112*	*619*	..	*19,757*
Fuel mining—									
Black coal—									
Underground	11,520	200	(*b*)	..	(*b*)	70	..	..	*c*14,541
Opencut	158	..	(*b*)	278	(*b*)	..	..	..	850
Total, black coal	11,678	200	*c* 2,429	278	736	70	..	..	*c*15,391
Brown coal	..	1,710	..	..	..	..	..	..	1,710
Total, fuel mining	*11,678*	*1,910*	*2,429*	*278*	*736*	*70*	..	..	*17,101*
Non-metal (excluding fuel) mining(*d*)	1,188	257	315	452	488	95	..	..	2,795
Total, all mining	*19,172*	*2,318*	*6,837*	*1,131*	*7,299*	*2,277*	*619*	..	*39,653*
Construction material quarrying(*d*)	2,122	2,006	368	932	364	270	69	86	6,217
Total, all mining and quarrying	21,294	4,324	7,205	2,063	7,663	2,547	688	86	45,870

(*a*) Average employment during whole year, including working proprietors. (*b*) Not available for publication. (*c*) Includes other fuel mining. (*d*) Incomplete owing to difficulties of coverage. *See* Scope and sources of statistics, page 1079.

The following table shows particulars of mining employment in Australia for the years 1961 to 1965. The figures show the average number of persons employed during the whole year, including working proprietors.

MINING AND QUARRYING: EMPLOYMENT, AUSTRALIA, 1961 TO 1965

Industry	1961	1962	1963	1964	1965
Metal mining—					
Gold	5,438	5,290	5,287	4,753	4,523
Lead-silver-zinc	8,158	7,958	7,946	7,811	7,269
Copper-gold	2,322	2,242	2,288	2,341	2,312
Tin	1,131	1,157	1,116	1,191	1,402
Mineral sands	1,141	1,408	1,565	1,734	2,000
Other metal	1,097	968	1,168	1,348	2,251
Total, metal mining	*19,287*	*19,023*	*19,370*	*19,178*	*19,757*
Fuel mining—					
Black coal	16,957	16,312	[a] 15,636	[a] 15,364	[a] 15,391
Brown coal	1,441	1,453	1,613	1,673	1,710
Total, fuel mining	*18,398*	*17,765*	*17,249*	*17,037*	*17,101*
Non-metal (excluding fuel) mining(*b*)	2,942	2,838	2,823	2,783	2,795
Total, all mining	*40,627*	*39,626*	*39,442*	*38,998*	*39,653*
Construction material quarrying(*b*)	5,498	5,599	5,406	5,814	6,217
Total, all mining and quarrying	**46,125**	**45,225**	**44,848**	**44,812**	**45,870**

(*a*) Includes other fuel mining. (*b*) Incomplete, *see* Scope and sources of statistics, page 1079.

Size classification of mines and quarries. Most of the mines and quarries worked during 1965 employed less than four persons, including working proprietors. However, more than half of the persons engaged in mining and quarrying were in the 49 mines each employing 200 persons or more. The following table shows the distribution of the total number of mines into various size groups according to the average number of persons employed during the period worked by each mine in 1965.

NUMBER OF MINES AND QUARRIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED: STATES AND TERRITORIES, 1965

Mines and quarries employing on the average(*a*)—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
Less than 4 persons—								
Establishments	748	282	428	222	200	138	59	2,077
Persons	1,168	524	652	390	626	248	161	3,769
From 4 to 20 persons—								
Establishments	184	156	77	84	72	33	11	617
Persons	1,460	1,226	692	793	564	251	108	5,094
From 21 to 200 persons—								
Establishments	81	29	71	13	23	11	7	235
Persons	6,565	1,124	3,379	706	1,580	868	337	14,559
More than 200 persons—								
Establishments	28	2	2	2	12	2	1	49
Persons	12,511	1,819	3,595	584	5,499	1,425	305	25,738
Total—								
Establishments	**1,041**	**469**	**578**	**321**	**307**	**184**	**78**	**2,978**
Persons	**21,704**	**4,693**	**8,318**	**2,473**	**8,269**	**2,792**	**911**	**49,160**

(*a*) Average during period worked. Includes working proprietors.

Accidents in mining. Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury. In 1965, 44 persons were recorded as killed and 1,233 as injured in mining (excluding quarrying) accidents. Recorded deaths and injuries in that year in black coal mines were 19 and 301, respectively, silver-lead-zinc mines 4 and 226, gold mines 8 and 268, and mineral sands mining 3 and 59. Persons killed and injured in the construction material quarrying industry numbered 2 and 86 respectively in 1965.

Salaries and wages paid

Salaries and wages paid in the mining and quarrying industries in Australia during each year 1961 to 1965 are shown in the following table. Information regarding rates of wages paid in the mining industry is shown in the chapter Labour, Wages and Prices (page 317) and also in the *Labour Report.*

MINING AND QUARRYING: SALARIES AND WAGES PAID(*a*), AUSTRALIA 1961 TO 1965

($'000)

Industry	1961	1962	1963	1964	1965
Metal mining—					
Gold	13,182	13,068	13,072	11,812	11,962
Lead-silver-zinc	26,522	24,454	25,678	29,948	34,397
Copper-gold	5,830	5,702	6,200	6,834	7,415
Tin	1,892	2,100	2,502	2,648	3,313
Mineral sands	2,948	3,478	4,156	4,706	5,837
Other metal	2,554	2,376	3,184	4,038	7,241
Total, metal mining	*52,928*	*51,178*	*54,792*	*59,986*	*70,165*
Fuel mining—					
Black coal	50,920	49,698	(*b*)49,230	(*b*)52,204	(*b*)55,942
Brown coal	3,846	3,942	4,634	5,144	5,503
Total, fuel mining	*54,766*	*53,640*	*53,864*	*57,348*	*61,445*
Non-metal (excluding fuel) mining(*c*)	5,750	5,796	5,764	6,248	6,388
Total, all mining	*113,444*	*110,614*	*114,420*	*123,582*	*137,998*
Construction material quarrying(*c*)	8,036	8,762	8,684	9,364	10,751
Total, all mining and quarrying	**121,480**	**119,376**	**123,104**	**132,946**	**148,749**

(*a*) Excludes mines and quarries employing less than four persons, and drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (*b*) Includes other fuel mining. (*c*) Incomplete. *See* Scope and sources of statistics, page 1079.

Power, fuel, light, and materials, etc. used

MINING AND QUARRYING: VALUE OF POWER, FUEL, LIGHT, AND OTHER MATERIALS AND STORES USED, AUSTRALIA, 1961 TO 1965

($'000)

Industry	1961	1962	1963	1964	1965
Metal mining—					
Gold	9,958	9,894	9,758	8,334	8,433
Lead-silver-zinc	20,606	17,342	21,590	22,688	21,009
Copper-gold	7,006	6,768	7,232	7,698	8,365
Tin	1,202	1,274	1,508	1,854	2,115
Mineral sands	3,594	3,676	5,052	4,906	5,114
Other metal	2,516	2,484	2,850	3,162	4,366
Total, metal mining	*44,882*	*41,438*	*47,990*	*48,644*	*49,402*
Fuel mining—					
Black coal	24,818	26,692	(*a*)27,002	(*a*)29,114	(*a*)31,718
Brown coal	1,244	1,344	1,478	1,532	2,108
Total, fuel mining	*26,062*	*28,036*	*28,480*	*30,648*	*33,827*
Non-metal (excluding fuel) mining(*b*)	5,016	5,636	5,534	5,342	5,720
Total, all mining	*75,960*	*75,110*	*82,004*	*84,636*	*88,949*
Construction material quarrying(*b*)	9,852	9,000	9,082	9,752	11,520
Total, all mining and quarrying	**85,812**	**84,110**	**91,086**	**94,388**	**100,468**

(*a*) Includes other fuel mining. (*b*) Incomplete. *See* Scope and sources of statistics, page 1079.

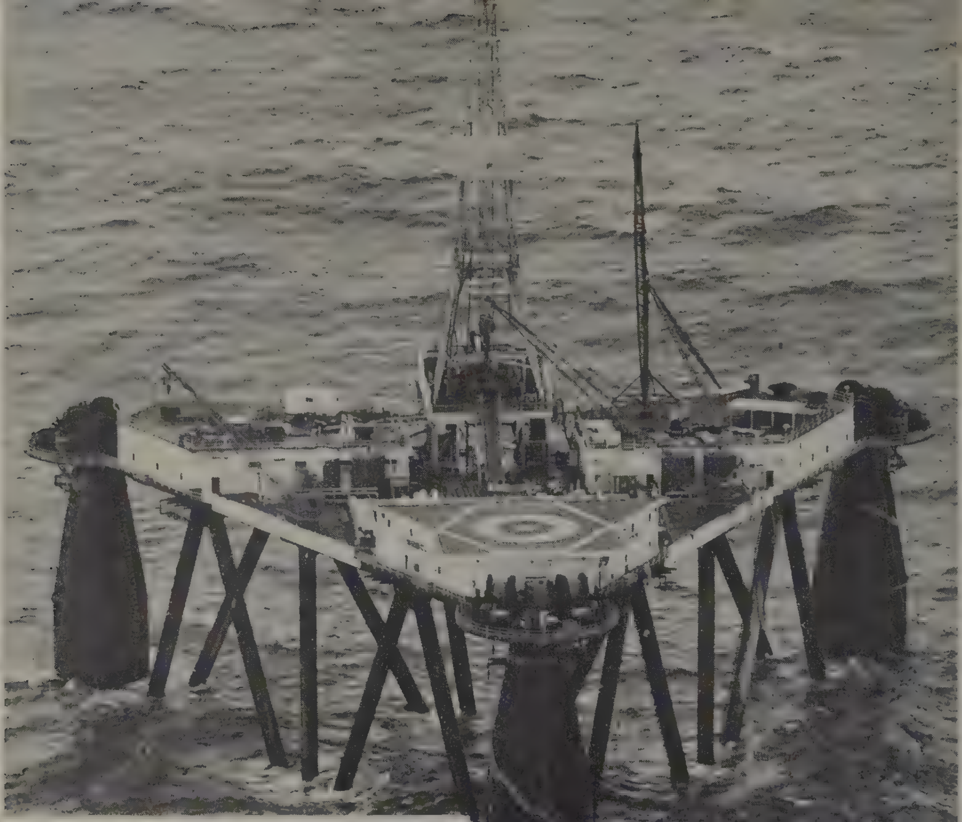
Value of additions and replacements to fixed assets in mining and quarrying

MINING AND QUARRYING: VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS(*a*), AUSTRALIA, 1961 TO 1965

($'000)

Industry	1961	1962	1963	1964	1965
Metal mining—					
Gold	1,556	3,216	2,024	1,365	1,073
Lead-silver-zinc	6,850	7,046	14,154	20,071	10,939
Copper-gold	1,690	2,730	5,066	7,419	5,333
Tin	522	540	1,548	4,459	6,583
Mineral sands	1,456	3,752	2,436	3,592	6,729
Other metal	2,276	5,154	4,476	5,556	21,053
Total, metal mining	*14,350*	*22,438*	*29,702*	*42,462*	*51,711*
Fuel mining—					
Black coal	23,070	26,096	*b* 20,668	*b* 19,952	*b* 28,695
Brown coal	5,446	6,122	6,610	5,416	6,115
Total, fuel mining	*28,516*	*32,218*	*27,278*	*25,368*	*34,810*
Non-metal (excluding fuel) mining(*c*)	2,548	1,408	1,742	3,498	2,109
Total, all mining	*45,414*	*56,064*	*58,722*	*71,328*	*88,630*
Construction material quarrying(*c*)	4,562	3,902	3,898	5,868	7,303
Total, all mining and quarrying	**49,976**	**59,966**	**62,620**	**77,194**	**95,933**

(*a*) Excludes mines and quarries employing less than four persons. (*b*) Includes other fuel mining. (*c*) Incomplete. *See* Scope and sources of statistics, page 1079.



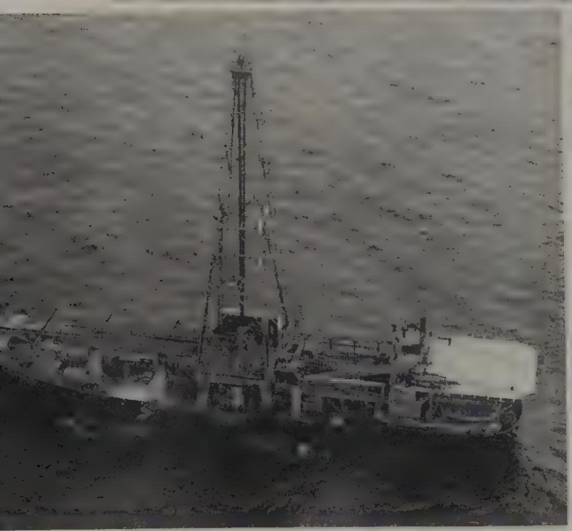


PLATE 52

Above and left: **Offshore drilling rigs operating in Bass Strait**

Below: **Oil refinery, Westernport, Victoria**

Photos: Petroleum Information Bureau

MINING AND QUARRYING: NET VALUE OF PRODUCTION(*a*) STATES AND TERRITORIES, 1965

($'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold	2	(*b*)	(*b*)	(*c*)	14,881	(*c*)	1,863	. .	17,599
Lead-silver-zinc	86,997	. .	41,541	(*c*)	346	(*b*)	1	. .	135,416
Copper-gold	1,005	1		9	206	(*b*)	3,256	. .	10,946
Tin	3,179	22	2,969	. .	1,225	2,776	53	. .	10,225
Mineral sands	11,877	. .	4,785	. .	3,391	. .	. .	. .	20,053
Other metal	233	(*b*)	(*b*)	9,941	5,688	(*b*)	9	. .	21,036
Total, metal mining	*103,292*	*537*	*53,148*	*9,951*	*25,739*	*17,426*	*5,182*	. .	*215,273*
Fuel mining—									
Black coal	86,722	392	*d*23,669	2,718	3,483	348	. .	. .	*d*117,331
Brown coal	. .	16,327	. .	. .	. .	. .	. .	. .	16,327
Total, fuel mining	*86,722*	*16,719*	*23,669*	*2,718*	*3,483*	*348*	. .	. .	*133,658*
Non-metal (excluding fuel) mining—									
Clays(*e*)	2,623	2,667	218	583	254	123	. .	. .	6,468
Gypsum	236	250	. .	1,187	69	. .	. .	. .	1,743
Limestone	2,324	681	1,050	2,197	(*b*)	(*b*)	. .	. .	6,919
Salt	. .	(*b*)	(*b*)	1,801	(*b*)	. .	(*c*)	. .	(*f*)2,245
Other non-metal mining(*e*)	1,386	(*b*)	(*b*)	3,670	(*b*)	(*b*)	. .	. .	6,214
Total, non-metal mining	*6,569*	*3,910*	*1,719*	*9,439*	*1,408*	*543*	(*c*)	. .	*23,589*
Total, all mining	*196,583*	*21,166*	*78,535*	*22,107*	*30,629*	*18,317*	*5,182*	. .	*372,520*
Construction material quarrying(*e*)	28,372	18,791	2,231	11,872	6,210	1,992	554	630	70,652
Total, all mining and quarrying	224,956	39,957	80,766	33,979	36,840	20,309	5,736	630	443,173

(*a*) Local value (i.e. value of output at mine or quarry) *less* cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (*b*) Not available for publication, included in total for Australia. (*c*) Less than $500. (*d*) Includes other fuel mining. (*e*) Incomplete. *See* Scope and sources of statistics, page 1079. (*f*) No allowance has been made for cost of power, fuel, light, and materials and stores used by the salt industry in Victoria, as particulars are not available.

MINING AND QUARRYING: NET VALUE OF PRODUCTION(*a*) STATES AND TERRITORIES, 1961 TO 1965

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
NET VALUE OF PRODUCTION ($'000)								
1961	121,368	32,958	46,868	26,206	31,106	10,406	5,578	274,490
1962	125,218	32,394	58,006	26,414	32,244	12,234	4,518	291,028
1963	149,710	33,652	61,948	29,614	30,698	14,466	5,508	325,596
1964	195,390	37,056	74,996	34,068	32,162	18,174	5,974	397,822
1965	224,956	39,957	80,766	33,979	36,840	20,309	6,366	443,173
NET VALUE OF PRODUCTION PER HEAD OF POPULATION ($)								
1961	30.76	11.16	30.63	26.69	41.67	29.17	62.44	25.89
1962	31.25	10.78	37.16	26.30	42.06	33.77	42.54	26.94
1963	36.76	10.99	38.96	28.77	39.06	39.48	51.68	29.57
1964	47.23	11.85	46.31	32.25	40.06	49.33	51.52	35.43
1965	53.51	12.52	49.02	31.53	44.66	54.98	49.43	38.72

(*a*) Local value (i.e. value of output at mine or quarry), *less* cost of power, fuel, light, and other materials and stores used; depreciation and maintenance costs have not been deducted.

Quantities of principal minerals produced

In the preparation of Australian mineral commodity production statistics the quantities and values of individual minerals produced are recorded in terms of the form in which they are dispatched from the locality of each mine. For example, in the case of metalliferous mines, the output is recorded as ore if no treatment is undertaken at the mine, or as a concentrate if ore-dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the contents of metallic minerals and contents or average grade of selected non-metallic minerals are recorded. Whenever practicable, contents (based on assay) of metallic minerals are shown for each metal which is a 'pay metal' or a 'refiners' prize' when present in the particular mineral. In general, other metallic contents which are not recovered are excluded. Individual mineral products are arranged in four groups corresponding to the major groups of the industry, namely metal mining, fuel mining, non-metal mining (excluding fuels), and construction material quarrying, referred to on page 1082. Particulars relating to uranium-bearing minerals are excluded.

The following tables show particulars of the quantity of the principal minerals produced during 1965 and earlier years.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED STATES AND NORTHERN TERRITORY, 1965

Mineral		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
METALLIC MINERALS									
Antimony concentrate	tons	55	..	..	..	..	..	..	55
Bauxite	,,	10,843	2,555	655,203	..	499,070	..	..	1,167,671
Beryllium ore	,,	26	..	..	..	12	..	..	38
Chromite	,,	..	..	23	..	..	..	..	23
Copper ore(*a*)	,,	62	..	31,797	114	1,079	8,262	11	41,325
Copper concentrate	,,	8,324	13	290,830	..	2,052	48,740	39,439	389,398
Copper precipitate	,,	135	..	84	..	..	13	67	299
Gold(*b*)	oz	170	19,841	41,682	3	986,431	108	70,268	1,118,503
Ilmenite concentrate	tons	8,158	..	2,421	..	430,455	..	..	441,034
Iron ore(*c*)	'000 tons	..	..	..	4,382	2,313	..	..	6,695
Lead ore(*d*)	tons	8,258	..	13,003	10	3,624	..	11	24,906
Lead concentrate	,,	384,973	..	103,564	..	1,254	13,565	..	503,356
Lead-copper concentrate	,,	..	..	..	..	..	10,424	..	10,424
Leucoxene concentrate	,,	..	..	..	..	380	..	..	380
Manganese ore	,,	294	..	1,750	..	97,901	..	424	100,369
Pyrite concentrate	,,	458	..	4,135	93,326	59,180	46,912	..	204,011
Rutile concentrate	,,	161,828	..	55,277	..	225	..	..	217,330
Tantalite-columbite concentrate	lb	..	..	..	..	25,290	..	291	25,581
Tin concentrate	tons	2,325	11	1,680	..	679	1,493	49	6,237
Tungsten concentrates—									
Scheelite concentrate	,,	..	..	..	..	..	1,150	..	1,150
Wolfram concentrate	,,	..	..	..	..	..	487	..	487
Zinc concentrate	,,	482,438	..	44,058	..	..	77,715	..	604,211
Zircon concentrate	,,	156,763	..	46,690	..	23,410	..	..	226,863
FUEL MINERALS									
Coal, black—									
Semi-anthracite	'000 tons	..	..	68	..	..	2	..	70
Bituminous	,,	24,130	42	3,955	..	..	100	..	28,228
Sub-bituminous	,,	..	..	131	2,016	994	..	..	3,140
Total coal, black	,,	*24,130*	*42*	*4,154*	*2,016*	*994*	*102*	..	*31,439*
Coal, brown (lignite)	,,	..	20,659	..	..	..	..	..	20,659
Natural gas	'000 cu ft	..	..	143,402	..	..	..	..	143,402
Natural gas condensate	gal	..	..	4,273	..	..	..	..	4,273
Crude oil	'000 gal	..	..	91,676	..	..	..	..	91,676

For footnotes *see* next page.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED STATES AND NORTHERN TERRITORY, 1965—*continued*

Mineral		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
NON-METALLIC (EXCLUDING FUEL) MINERALS									
Asbestos	short tons	722	..	..	..	10,844	..	..	11,566
Barite	tons	876	..	..	10,349	751	..	..	11,976
Clays—									
Brick clay and shale	'000 tons	2,145	1,517	385	386	429	194	..	5,056
Other(*e*)	„ „	499	191	72	106	112	27	..	1,008
Diatomite	tons	1,639	692	4,627	..	..	..	..	6,958
Dolomite(*f*)	„	4,345	..	7,987	245,184	..	1,145	..	258,661
Felspar	„	5,822	..	..	1,520	1,384	..	..	8,726
Gypsum	„	58,371	168,589	..	559,954	46,607	..	..	833,521
Limestone(*f*)	'000 tons	2,805	1,459	(*g*)	1,562	(*g*)	(*g*)	..	7,516
Magnesite	tons	24,500	..	1,000	663	199	..	..	26,362
Phosphate rock	„	..	..	..	4,504	15	..	..	4,519
Salt, crude	„	..	(*g*)	(*g*)	512,852	(*g*)	..	50	654,533
Silica (glass, chemical, etc.)(*e*)	„	215,707	..	49,767	35,799	9,272	10,392	..	320,937
Talc	„	2,018	..	..	10,613	7,088	..	..	19,719
CONSTRUCTION MATERIALS(*e*)									
Sand	'000 tons	4,965	3,926	n.a.	1,795	n.a.	276	*h* 595	11,444
River gravel	„	2,256	3,604	n.a.	546	n.a.	1,240		7,760
Dimension stone	„	222	14	4	32	186	1	*h* 686	467
Crushed and broken stone	„	6,694	15,535	2,773	10,775	2,470	1,340		40,165
Other (decomposed rock, etc.)	„	18,628	1,909	11	..	..	284		20,931

(*a*) Includes cupreous ore for fertiliser. (*b*) Bullion, alluvial, retorted gold, etc. (*c*) Iron oxide for metal extraction only. (*d*) Includes lead-silver-zinc ore. (*e*) Incomplete, *see* Scope and sources of statistics, page 1079. (*f*) Excludes quantities used directly as building or road material. (*g*) Not available for publication. (*h*) Includes Australian Capital Territory which is not available for publication by individual items.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA 1961 TO 1965

Mineral		1961	1962	1963	1964	1965
METALLIC MINERALS						
Antimony ore and concentrate	tons	190	100	115	414	55
Bauxite	„	15,976	29,547	354,206	783,900	1,167,671
Beryllium ore	„	306	223	110	111	38
Chromite	„	..	369	160	72	23
Copper ore(*a*)	„	75,215	101,492	82,035	59,686	41,325
Copper concentrate	„	373,770	395,427	434,368	427,258	389,398
Copper precipitate	„	825	216	504	264	299
Gold(*b*)	'000 oz	(*c*)	(*c*)	1,231	1,150	1,119
Ilmenite concentrate	tons	165,865	178,867	200,983	303,628	441,034
Iron ore(*d*)	'000 tons	5,342	4,843	5,515	5,669	6,695
Lead ore(*e*)	tons	7,743	13,197	16,249	25,174	24,906
Lead concentrate	„	382,292	522,276	584,462	536,213	503,356
Lead-copper concentrate	„	8,057	11,192	9,309	10,214	10,424
Leucoxene concentrate	„	535	627	547	656	380
Manganese ore	„	87,411	71,646	36,061	61,109	100,369
Pyrite concentrate	„	213,423	148,566	194,059	220,078	204,011
Rutile concentrate	„	101,431	119,195	183,260	182,371	217,330
Tantalite-columbite concentrate	lb	31,808	43,097	30,889	33,600	25,581
Tin concentrate	tons	3,870	3,842	4,132	5,314	6,237
Tungsten concentrates—						
Scheelite concentrate	„	1,017	995	958	1,020	1,150
Wolfram concentrate	„	1,142	492	394	380	487
Zinc concentrate	„	542,640	572,900	594,861	588,840	604,211
Zircon concentrate	„	136,462	133,844	184,830	184,082	226,863

For footnotes *see* next page.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA 1961 TO 1965—*continued*

Mineral		1961	1962	1963	1964	1965
FUEL MINERALS						
Coal, black—						
Semi-anthracite	'000 tons	59	70	61	79	70
Bituminous	,,	21,991	22,006	22,268	24,477	28,228
Sub-bituminous	,,	1,956	2,394	2,527	2,845	3,140
Total coal, black	,,	*24,006*	*24,470*	*24,856*	*27,401*	*31,439*
Coal, brown (lignite)	,,	16,279	17,137	18,456	19,035	20,659
Natural gas	'000 cu ft	12,187	56,361	95,725	106,490	143,402
Natural gas condensate	gal	559	2,199	4,312	8,568	4,273
Crude oil	'000 gal	..	..	..	52,157	91,676
NON-METALLIC (EXCLUDING FUEL) MINERALS						
Asbestos	short tons	16,746	18,416	13,374	13,654	11,566
Barite	tons	19,217	12,534	8,220	12,302	11,976
Clays—						
Brick clay and shale	'000 tons	4,344	4,383	4,549	5,163	5,056
Other(*f*)	,,	912	913	984	1,039	1,008
Diatomite	tons	5,417	7,312	5,133	8,732	6,958
Dolomite(*g*)	,,	191,624	180,697	214,339	236,068	258,661
Felspar	,,	8,209	8,513	8,842	9,021	8,726
Gypsum	,,	609,907	630,910	725,444	795,003	833,521
Limestone(*g*)	'000 tons	6,146	6,415	6,721	7,223	7,516
Magnesite	tons	98,795	62,191	56,946	31,250	26,362
Phosphate rock	,,	4,874	4,385	4,925	5,689	4,519
Salt, crude	,,	508,657	536,019	581,537	545,491	654,533
Silica (glass, chemical, etc.)(*f*)	,,	212,575	218,544	247,928	322,269	320,937
Talc	,,	13,545	14,060	13,106	15,695	19,719
CONSTRUCTION MATERIALS(*f*)						
Sand	'000 tons	7,427	7,535	9,050	10,757	11,444
River gravel	,,	6,018	5,912	7,624	8,117	7,760
Dimension stone	,,	533	379	629	590	467
Crushed and broken stone	,,	27,303	27,944	29,768	34,175	40,165
Other (decomposed rock, etc.)	,,	16,482	17,310	20,830	23,460	20,931

(*a*) Includes cupreous ore for fertiliser. (*b*) Bullion, alluvial, retorted gold, etc. (*c*) Gross weight not available. (*d*) Iron oxide for metal extraction. (*e*) Includes lead-silver-zinc ore. (*f*) Incomplete owing to difficulties of coverage. *See* Scope and sources of statistics, page 1079. (*g*) Excludes quantities used directly as building or road material.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

Contents of metallic minerals produced

The following tables show the contents of metallic minerals produced in 1965 and earlier years.

CONTENTS OF METALLIC MINERALS PRODUCED STATES AND NORTHERN TERRITORY, 1965

Content of metallic minerals produced		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Alumina (Al_2O_3)	tons	4,131	1,331	383,294	..	224,581	..	..	613,337
Antimony	,,	944	..	..	..	..	..	..	944
Beryllium oxide (BeO)	units(*a*)	330	..	..	..	127	..	..	457
Cadmium	tons	995	..	90	..	..	70	..	1,155
Chromic oxide (Cr_2O_3)	,,	..	..	10	..	..	..	..	10
Cobalt	,,	90	..	..	..	..	..	..	90
Copper	,,	5,211	3	60,406	23	626	15,168	8,951	90,388
Gold	fine oz	9,640	19,246	76,964	2	656,355	32,897	82,539	877,643
Iron(*b*)	'000 tons	..	..	..	2,812	1,486	..	..	4,297
Lead	tons	296,662	..	49,673	4	1,379	14,415	4	362,137
Manganese(*c*)	,,	6,200	..	..	..	48,847	233	..	55,280
Manganese dioxide (MnO_2)(*d*)	,,	181	..	1,166	..	20	..	285	1,652
Molybdenum disulphide (MoS_2)	lb	35,940	..	5,971	..	..	..	..	41,911
Monazite	,,	546	..	244	..	1,375	..	..	2,165
Silver	'000 fine oz	10,636	..	4,636	..	245	1,678	86	17,281
Sulphur(*e*)	tons	211,678	..	16,120	38,917	24,865	53,974	..	345,554
Tantalite-columbite ($Ta_2O_5+Nb_2O_5$)	lb	..	..	..	..	10,147	..	134	10,281
Tin	tons	1,124	8	1,176	..	468	1,045	28	3,849
Titanium dioxide (TiO_2)	,,	158,963	..	54,708	..	234,647	..	..	448,318
Tungstic oxide (WO_3)	,,	..	..	..	..	..	1,176	..	1,176
Zinc	,,	270,936	..	30,975	..	1,010	46,310	..	349,231
Zircon	,,	155,255	..	46,223	..	23,176	..	..	224,654

(*a*) 1 unit = 22 4 lb. (*b*) Excludes iron content of iron oxide not intended for metal extraction. (*c*) Content of metallurgical grade manganese ore and zinc concentrate. (*d*) Content of manganese ore of other than metallurgical grade. (*e*) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

CONTENTS OF METALLIC MINERALS PRODUCED: AUSTRALIA, 1961 TO 1965

Content of metallic minerals produced		1961	1962	1963	1964	1965
Alumina (Al_2O_3)	tons	7,464	13,250	154,499	396,329	613,337
Antimony	,,	680	874	1,007	1,116	944
Beryllium oxide (BeO)	units(*a*)	3,585	2,586	1,278	1,279	457
Bismuth	lb	602	97	..	..	..
Cadmium	tons	907	992	1,109	1,050	1,155
Chromic oxide (Cr_2O_3)	,,	..	185	72	32	10
Cobalt	,,	65	78	86	73	90
Copper	,,	95,626	106,972	112,967	104,050	90,388
Gold	fine oz	1,076,292	1,068,837	1,023,970	963,834	877,643
Iron(*b*)	'000 tons	3,434	3,119	3,558	3,655	4,297
Lead	tons	269,656	370,110	410,291	374,856	362,137
Manganese(*c*)	,,	45,087	39,413	23,951	36,564	55,280
Manganese dioxide (MnO_2)(*d*)	tons	1,429	1,512	1,228	1,033	1,652
Molybdenum disulphide (MoS_2)	lb	2,630	2,332	21,645	..	41,911
Monazite	tons	1,463	772	1,875	1,848	2,165
Platinum	oz	2	2	4	..	..
Silver	'000 fine oz	13,059	17,554	19,642	18,427	17,281
Sulphur(*e*)	tons	324,866	312,803	345,636	346,502	345,554
Tantalite-columbite ($Ta_2O_5+Nb_2O_5$)	lb	13,814	18,879	12,935	12,499	10,281
Tin	tons	2,745	2,715	2,860	3,642	3,849
Titanium dioxide (TiO_2)	,,	191,965	215,494	288,050	342,646	448,318
Tungstic oxide (WO_3)	,,	1,536	1,042	960	996	1,176
Zinc	,,	311,157	337,532	351,470	344,600	349,231
Zircon	,,	134,483	132,109	182,112	182,174	224,654

(*a*) 1 unit = 22.4 lb. (*b*) Iron oxide for metal extraction. (*c*) Content of metallurgical grade manganese ore and zinc concentrate. (*d*) Content of manganese ore of other than metallurgical grade. (*e*) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

MINE PRODUCTION OF PRINCIPAL METALS

(METALLIC CONTENT OF MINERALS)

AUSTRALIA, 1936 TO 1966

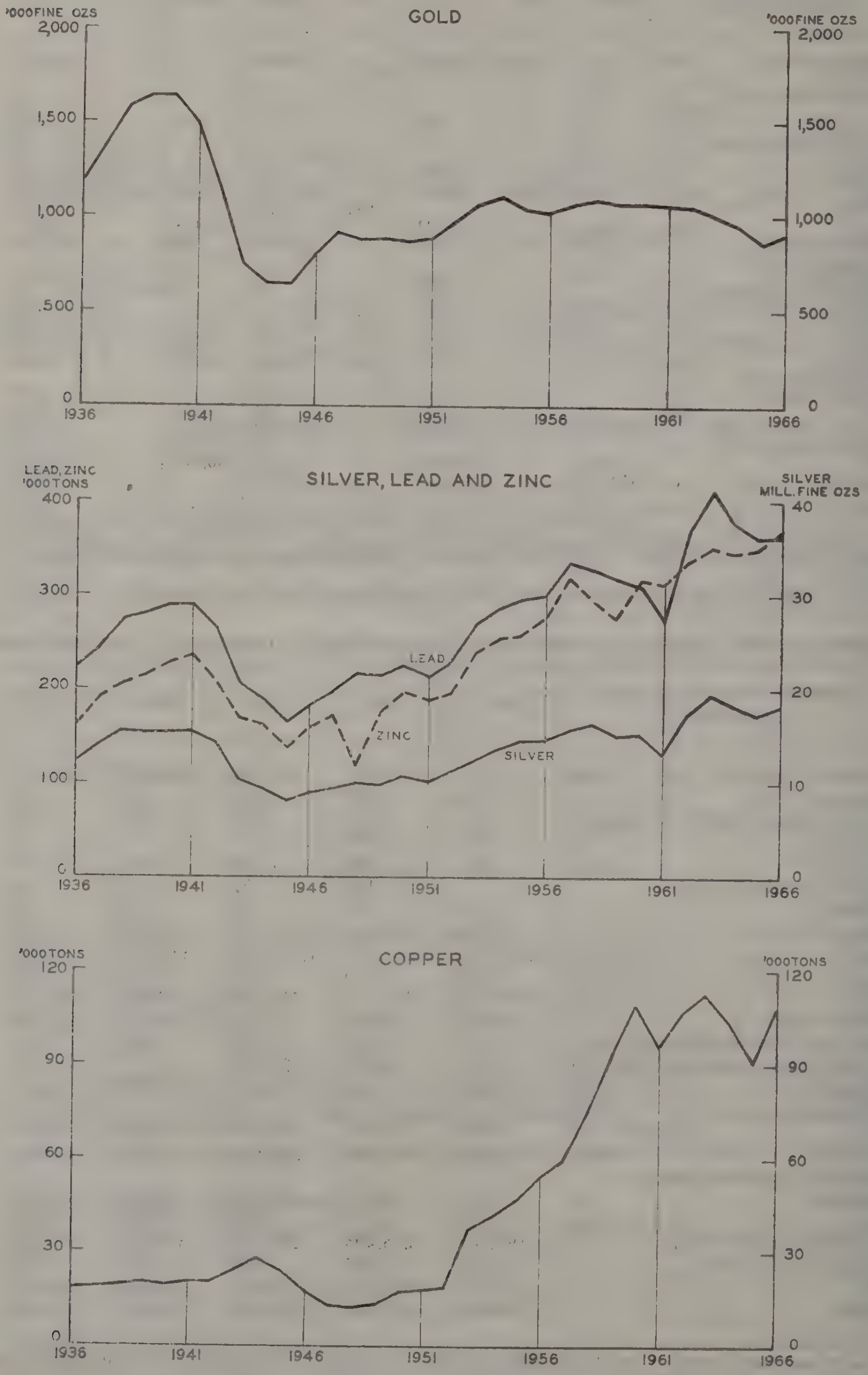


PLATE 53

MINE PRODUCTION OF PRINCIPAL METALS AND PRODUCTION OF COAL

(METALLIC CONTENT OF MINERALS)

AUSTRALIA, 1936 TO 1966

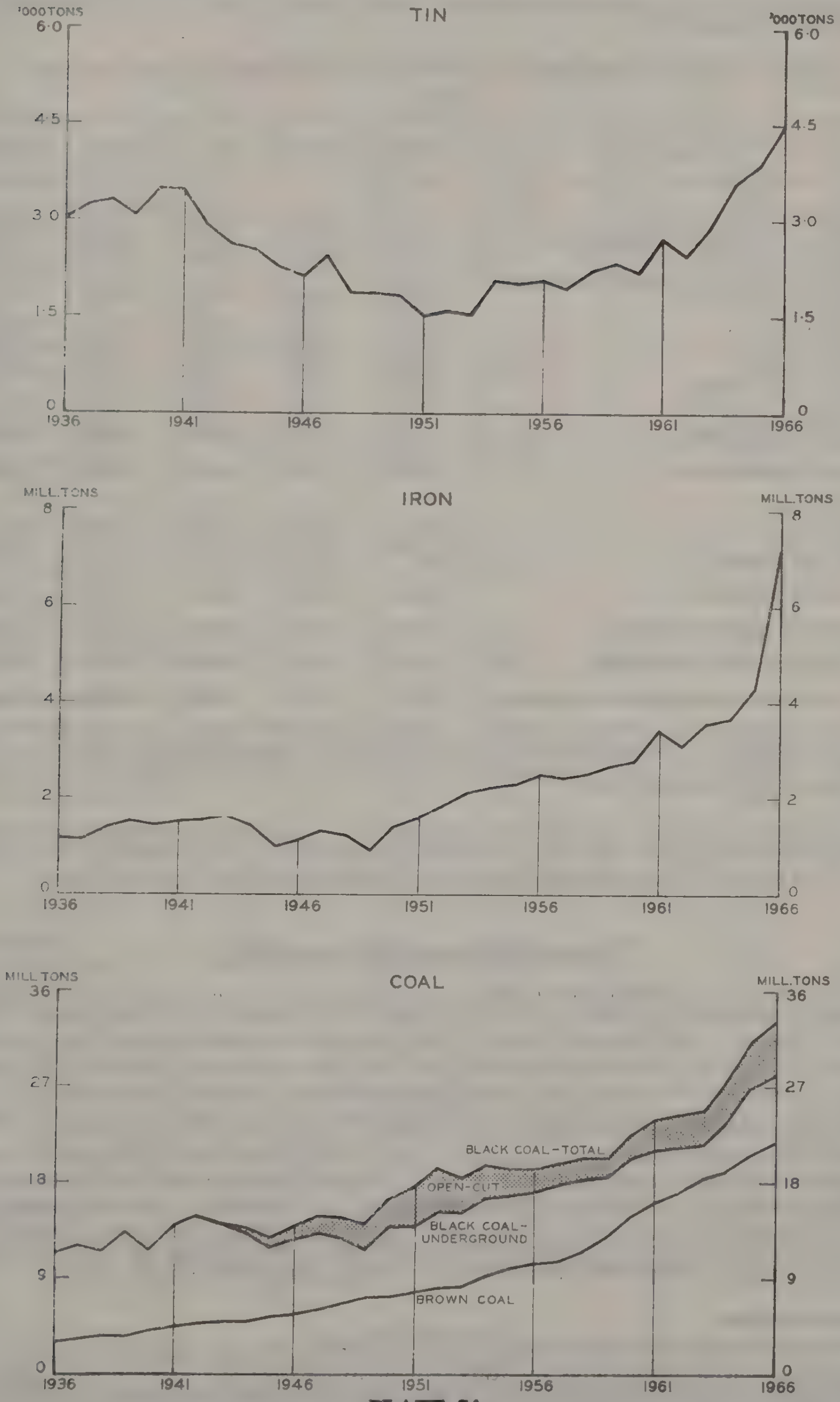


PLATE 54

Graphs showing details of the mine production of principal metals (metallic content) and coal from 1935 to 1965 are included on plates 53 and 54, pages 1094–1095.

Local value of minerals produced, 1961 to 1965

Particulars of the values of minerals (mine and quarry products) produced are shown in the following table. The values represent the selling value at the mine or quarry of minerals produced during the years concerned.

LOCAL VALUE OF MINERALS PRODUCED: AUSTRALIA, 1961 TO 1965
($'000)

Mineral	1961	1962	1963	1964	1965
Metallic minerals—					
Copper ore, concentrate, etc.	42,498	48,604	52,036	51,380	50,790
Gold ore, concentrate, other forms, etc.	31,718	31,254	29,556	26,666	25,619
Iron ore	11,798	10,650	12,200	12,550	14,640
Lead and lead-silver ore and concentrate, lead-copper concentrate, etc.	33,866	39,096	56,320	80,806	87,947
Manganese ore	854	960	492	750	808
Pyrite concentrate	2,504	2,230	2,354	3,054	3,040
Rutile concentrate	6,628	7,038	12,114	12,080	15,038
Tin concentrate	5,572	5,668	5,784	10,224	12,237
Tungsten concentrates	2,066	1,118	1,640	1,420	2,692
Zinc ore and concentrate	10,590	9,110	16,468	35,456	36,818
Zircon concentrate	2,534	2,582	3,550	3,462	6,136
Other metallic minerals	1,536	1,894	2,994	5,794	8,903
Total, metallic minerals	*152,164*	*160,204*	*195,508*	*243,642*	*264,668*
Fuel minerals—					
Coal, black	114,162	119,078	118,202	128,038	143,703
Coal, brown	15,444	15,682	16,156	17,304	18,436
Other fuel minerals	n.a.	n.a.	58	2,164	5,344
Total, fuel minerals	*129,606*	*134,760*	*134,416*	*147,506*	*167,483*
Total, non-metallic minerals(*a*)	22,990	24,320	26,038	27,814	29,241
Total, construction materials(*a*)	55,542	55,854	60,720	73,244	82,251
Total, all minerals and construction materials	360,302	375,138	416,682	492,208	543,642

(*a*) Incomplete owing to difficulties of coverage. *See* Scope and scources of statistics, page 1079.

NOTE. Particulars of the value of uranium concentrate produced are not available for publication and have been excluded from the table above.

Owing to the necessity of classifying individual mines according to the principal mineral produced, the values in the table on page 1088 for mining industry groups differ slightly in some cases from totals of the corresponding groups of mine products shown in the table above.

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only part of the wider field of mineral technology. It is only in rare instances that minerals can be used directly in the form in which they are produced by mines, and much more commonly minerals must undergo considerable processing and treatment before their full utility and value can be realised. Examples of this processing and treatment are the smelting and refining of metals, the production of coke from coal, the refining of oil, and the treatment of non-metallic minerals as in the production of superphosphate and other chemicals and building materials like bricks and cement. The sectors of the economy which carry out this work are classified for statistical purposes to the manufacturing industry, and particulars relating to those activities which principally involve mineral processing and treatment—i.e. the treatment of non-metalliferous mine and quarry products, the manufacture of mineral oils and chemical fertilisers, the smelting, converting, refining and rolling of iron and steel, the extracting and refining of other metals, and the manufacture of alloys are given in the chapter Manufacturing Industry, pages 1110–36 and 1144–5.

Principal products

The following table shows particulars of the production of certain important manufactured products of mineral origin during the years 1961–62 to 1965–66. Secondary metal is excluded from the metal production statistics except in the case of ingot steel. For blister copper and lead bullion the figures shown relate to the copper and lead content respectively.

PRODUCTION OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN: AUSTRALIA, 1961–62 TO 1965–66

Commodity		1961–62	1962–63	1963–64	1964–65	1965–66
METALS						
Non-ferrous—						
Refined aluminium	tons	14,408	26,870	58,937	85,497	87,222
Blister copper(*a*)	„	66,818	88,901	92,809	57,880	98,529
Refined copper	„	63,769	85,652	89,222	53,441	91,001
Lead bullion (for export)(*a*)	„	56,063	78,299	82,440	63,827	82,084
Refined lead	„	174,497	208,946	217,292	199,032	188,101
Refined zinc	„	153,742	175,850	186,389	189,395	196,534
Refined tin	„	2,442	2,714	2,959	2,931	3,537
Ferrous—						
Pig iron	'000 tons	3,380	3,400	3,772	3,936	4,380
Steel ingots	„	4,076	4,260	4,764	5,027	5,561
Precious—						
Refined gold(*b*)	'000 f. oz	1,036	1,006	911	871	774
Refined silver	„	6,751	8,514	9,392	8,939	8,683
FUELS						
Coal products—						
Metallurgical coke	'000 tons	2,717	2,759	2,915	3,118	3,142
Brown coal briquettes	„	1,820	1,805	1,883	1,893	1,877
Petroleum products—						
Motor spirit	mill. gal	1,213	1,263	1,358	1,482	1,524
Furnace fuel	'000 tons	3,873	4,629	4,686	4,869	5,340
Automotive distillate	„	1,605	1,654	1,616	1,603	1,829
Industrial diesel fuel	„	874	981	917	862	859
BUILDING MATERIALS						
Clay bricks	millions	992	1,059	1,238	1,353	1,357
Portland cement	'000 tons	2,783	2,942	3,320	3,746	3,667
Plaster of paris	„	228	241	260	277	268
Plaster sheets (fibrous)	'000 sq yd	15,332	15,932	15,922	14,760	29,613
CHEMICALS						
Sulphuric acid	'000 tons	1,136	1,256	1,447	1,610	1,779
Caustic soda	tons	47,539	56,481	64,230	69,879	74,430
Superphosphate	'000 tons	2,591	2,862	3,347	3,703	4,185

(*a*) Metallic content. (*b*) Newly-won gold of Australian origin.

Overseas trade

A significant proportion of Australia's mineral production is exported to overseas markets, and these exports make a valuable contribution to total exports. The major exports at present are lead, zinc, coal, mineral sands, gold, silver, copper, basic iron and steel products, and opals.

Mineral imports are dominated by crude petroleum, imports of which have expanded rapidly since the mid-1950's, concomitant with the growth of the domestic petroleum refining industry. Of the other mineral imports, the most important are phosphate rock, sulphur, ferro-alloys, asbestos, tin, and alumina.

Exports and imports

Particulars of the quantities and values ($ f.o.b. port of shipment) of the principal minerals and mineral products exported from and imported into Australia during the years 1963 to 1965 are shown in the following table.

EXPORTS AND IMPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS AUSTRALIA, 1963 TO 1965

Item		Quantity			Value ($'000 f.o.b.)		
		1963	1964	1965	1963	1964	1965
				EXPORTS(*a*)			
Coal	tons	3,174,773	4,805,953	7,155,564	26,674	41,047	60,661
Copper—							
Ore and concentrate	"	30,937	47,255	46,111	4,102	6,484	7,337
Ingots, pigs (refined)	"	24,485	13,817	11,703	14,018	8,315	12,220
Rolled, drawn and extruded shapes	"	5,049	5,077	11,721	3,814	4,265	11,444
Gold, refined	fine oz	472,132	427,318	745,125	14,778	13,382	23,265
Iron and steel—							
Pig iron	tons	132,798	55,940	45,154	5,290	2,622	2,174
Ingots, blooms and slabs	"	31,909	8,507	10,519	2,058	529	605
Tinplate	"	68,200	65,435	71,363	9,534	9,028	9,282
Scrap	"	334,351	392,408	308,648	7,930	10,114	9,773
Lead—							
Ore and concentrate	"	121,983	112,194	108,256	13,428	17,614	20,829
Lead-silver bullion	"	76,482	76,061	69,286	13,386	20,094	21,252
Pig	"	174,988	156,305	156,545	26,488	35,267	43,502
Opals		..	..	..	5,394	5,398	5,324
Petroleum oils—							
Gasolenes and solvents	'000 gal	51,742	51,656	16,477	5,734	5,448	2,106
Kerosenes	"	25,718	12,690	15,149	3,160	1,578	1,797
Automotive distillate	"	126,665	74,183	41,339	12,878	7,442	3,825
Residuals and heavy distillates	"	384,877	233,953	165,704	22,946	13,064	7,774
Rutile concentrate	tons	154,508	193,893	239,454	10,632	14,080	17,134
Zinc—							
Ore and concentrate	"	261,856	224,117	212,946	8,998	15,684	14,328
Refinery type shapes	"	96,775	80,184	87,051	17,114	21,226	24,205
Zircon concentrate	"	179,697	198,664	216,661	4,354	5,124	6,816
				IMPORTS			
Alumina	tons	54,486	71,437	55,647	3,650	4,818	3,900
Aluminium, refined ingots	"	12,115	565	357	5,528	372	312
Asbestos	short tons	36,628	42,896	51,719	4,211	4,873	5,859
Gold, unrefined bullion(*b*)	fine oz	161,847	143,144	137,143	5,056	4,466	4,252
Ferro-alloys	tons	28,778	19,271	32,587	4,976	4,171	6,909
Petroleum oils—							
Crude	'000 gal	3,287,455	3,253,681	3,399,992	149,000	147,356	155,851
Enriched crude	"	575,951	692,727	878,206	27,446	32,974	39,507
Kerosenes	"	88,993	59,312	79,836	9,648	6,268	8,505
Lubricating oil	"	53,536	47,031	20,646	14,770	12,616	5,601
Gasolines and solvents	"	254,956	290,258	269,702	28,398	32,242	30,699
Phosphate rock	'000 tons	1,762	2,355	2,527	10,708	16,236	17,505
Sulphur	tons	222,527	376,639	387,869	4,304	6,508	7,496
Tin, refined	"	1,751	1,283	1,582	3,724	3,798	5,259
Titanium oxide (pigments)	"	5,086	2,875	2,167	2,012	1,231	870

(*a*) Australian produce. (*b*) Gold content.

Considerable quantities of metallic ores, concentrates, slags, and residues are exported from Australia for refining overseas. The following table shows the quantities of selected items exported during 1965 and their principal metallic content as estimated by assay.

PRINCIPAL METALLIC CONTENTS OF SELECTED ORES AND CONCENTRATES ETC. EXPORTED FROM AUSTRALIA DURING 1965

Ores and concentrates, etc.	Quantity exported	Metallic contents—estimated from assay							
		Antimony	Copper	Gold	Lead	Silver	Tin	Tungstic oxide	Zinc
	tons	tons	tons	fine oz	tons	'000 fine oz	tons	tons	tons
Copper—									
Ore, concentrate and precipitate	46,230	..	9,725	21,446	..	102	1	..	..
Copper-lead dross and speiss	2,833	..	600	..	1,742	154	..	..	..
Other slags and residues	381	..	212	5	..	..	2	..	..
Blister	2,115	..	2,102	32,145	..	13	..	..	..
Matte	5,855	12	2,052	196	2,562	192	..	..	..
Lead—									
Ore and concentrate(*a*)	108,256	162	1,237	28,398	73,885	2,568	..	..	8,080
Slags and residues	5,135	85	93	1,294	3,079	22	46	..	27
Lead-silver bullion	69,286	..	..	48	68,879	4,258	..	..	..
Tin concentrate	1,642	..	8	..	1	..	633	..	..
Tungsten—									
Scheelite ore and concentrate	1,495	..	..	..	..	..	..	1,023	..
Wolfram ore and concentrate	417	..	..	..	..	..	..	304	..
Zinc—									
Ore and concentrate	212,946	..	1	..	3,197	60	..	..	103,493
Slags and residues	7,308	..	..	..	..	..	..	..	5,103
Total metallic contents	..	259	16,030	83,532	153,345	7,371	682	1,327	116,703

(*a*) Includes lead-copper concentrate.

Direction of trade

Australia's minerals are exported to many countries throughout the world, but the principal markets are Japan, United Kingdom, United States, and Europe. Since 1960 Japan has been the principal buyer of Australian minerals. The distribution of exports according to principal destinations, and imports according to principal sources, for the years 1963 to 1965, are shown in the following table.

VALUE OF OVERSEAS MINERAL TRADE, BY COUNTRY OR REGION AUSTRALIA(*a*), 1963 TO 1965

Country or region	Value ($ m f.o.b.)			Percentage		
	1963	1964	1965	1963	1964	1965
EXPORTS(*b*)						
Japan	53.8	72.6	92.4	32.0	32.1	32.5
Other Asian and Pacific	13.8	25.8	30.0	8.2	11.4	10.5
United Kingdom	49.0	68.4	68.2	29.2	30.2	24.0
European Economic Community	18.4	27.8	43.8	11.0	12.3	15.4
United States	22.2	27.0	42.5	13.2	11.9	14.9
Other	10.8	4.8	7.7	6.4	2.1	2.7
Total	168.0	226.4	284.6	100.0	100.0	100.0
IMPORTS						
Middle East	118.0	126.8	132.4	51.2	51.5	44.0
Indonesia	47.0	44.6	53.0	20.4	18.1	17.6
Other Asian	4.2	14.8	24.0	1.8	6.0	8.0
Pacific	11.4	15.6	14.3	4.9	6.3	4.8
United States	7.4	17.2	23.6	3.2	7.0	7.9
Canada	8.2	8.0	9.7	3.6	3.3	3.2
Europe (including United Kingdom and European Economic Community)	5.2	9.8	31.0	2.3	4.0	10.3
Other	29.0	9.4	12.6	12.6	3.8	4.2
Total	230.4	246.2	300.6	100.0	100.0	100.0

(*a*) Excludes gold movements. (*b*) Excludes uranium oxide and alumina, details of which are not available for publication.

Review of recent developments in the Australian mineral industry

Prior to Year Book No. 52 it was customary to include a series of detailed reviews of the principal commodities produced by the Australian mineral industry and recent developments concerning these commodities. However, with the increasing diversification and development of the industry, it has become impractical to continue these reviews in the Year Book and the reader who wishes to obtain information of this kind is referred to *The Australian Mineral Industry—Annual Review* published by the Bureau of Mineral Resources, Geology and Geophysics. That publication contains comprehensive reviews of mineral commodities of importance to the Australian economy, as well as a general review of the industry's performance during each year. Major developments in the industry, particularly during the last year, are reviewed briefly in subsequent parts of this section.

General review, 1966

Expansion of the Australian mineral industry was maintained during 1966 with the preliminary value of mineral production increasing by 15 per cent from $544 million in 1965 to $624 million in 1966. The major reasons for this increase in the value of mineral production were the commencement of production on a large scale from three large iron ore developments in Western Australia, improved prices for copper minerals, and increased production of copper and bauxite. The value of exports of minerals and mineral products also increased, in particular because of the commencement of exports of iron ore under long-term contracts, mainly to Japan.

Bauxite

The history of the aluminium industry and recent significant developments in the industry were reviewed in previous issues of the Year Book (No. 51, page 1168 and No. 52, page 1048). The year 1966 and early 1967 were periods of continued growth in the industry both in mining and processing as detailed below.

Bauxite production from deposits at Weipa, Queensland, has been increased to a rate of 2.5 million tons per annum following completion of a further stage in the development of the mine and associated township, and of ore treatment and loading facilities. It is expected that production will rise to nearly 5 million tons by the early 1970's. Approximately half the output from Weipa will be used by the Gladstone, Queensland, alumina refinery, a further 110 thousand tons will be shipped to Bell Bay, Tasmania, and the remaining production will be exported.

Bauxite deposits at Gove, Northern Territory, covering reserves of the order of 150 million tons of bauxite, are being developed by a consortium of seven Australian and one overseas company. The consortium plans to construct an alumina plant at Gove by 1971 with an initial capacity of 500,000 metric tons per annum. The ultimate capacity of the plant is to be 2 million metric tons per annum; the plant is to consist of four independent production units, each with an annual capacity of 500,000 metric tons.

Alumina

An alumina refinery with a capacity of 600,000 tons per annum at Gladstone, Queensland, which was completed at a cost of $115 million, was commissioned in March 1967. Plans have already been announced to increase the capacity of the refinery to 900,000 tons per annum, with an eventual capacity of 1,800,000 tons per annum. Plans were also announced to increase the capacity of the alumina refinery at Kwinana, Western Australia, from 410,000 metric tons to 830,000 metric tons per annum by the end of 1969. Bauxite supplies for the Kwinana refinery are obtained from deposits 28 miles away at Jarrahdale, Western Australia, the reserves of which were recently re-assessed from 200 million tons to 500 million tons.

Aluminium

Initial construction of an aluminium smelter with a capacity of 40,000 tons per annum at Kurri Kurri near Newcastle, New South Wales, was commenced in 1967 for completion in 1969. An aluminium powder and paste plant, capable of supplying the whole of Australia's needs, is to be established at Bell Bay, Tasmania. A letter of intent has been received by the Western Australian Government regarding the possible establishment of an aluminium smelter at Kwinana in possibly ten to twelve years.

Copper

Copper production (copper in mine products) increased to 109,260 tons in 1966, mainly because of resumption of production after the long strike at Mount Isa in late 1964 and early 1965. A $130 million expansion programme at Mount Isa was completed in 1966 with the commissioning of a new shaft and concentration plant. During the development period when lower grade ore is being extracted, the Mount Isa output will be supplemented by ore from the Young Australia mine, fifty miles south of Cloncurry, Queensland, where known reserves were reported to be sufficient for twelve months operations.

In early 1967 a pilot plant to test the new Worcra copper smelting process for the continuous production of metallic copper directly from copper concentrates was completed at Port Kembla, New South Wales.

The basis of the Australian Producers' price for copper was changed in August 1966 from $870 to $1,250 per ton to relate to copper prices on the London Metal Exchange, which were significantly higher than the Australian Producers' price. Since August 1966 the Australian Producers' price has been adjusted regularly to reflect movements in London Metal Exchange prices, the price in May 1967 being $950 per ton.

Gold

A new gold-copper mine will be developed near Tennant Creek, Northern Territory. The first stage of development, which will cost $10 million, will have an installed mining capacity of 400,000 tons of ore per annum.

Iron ore

The year 1966 was one of significant developments in the iron ore mining industry. Production commenced during 1966 from deposits at Mount Tom Price, Mount Goldsworthy and Koolanooka in Western Australia. Development of deposits at Savage River, Tasmania (including the construction of a pelletisation plant at Brickmakers Bay) and at Frances Creek and Mount Bundey, Northern Territory was undertaken during 1966, for production in late 1967 or early 1968.

Development of deposits at Mount Tom Price involved the construction of a railway from the mine to the deepwater port at Dampier, a distance of 182 miles. The development of the Mount Goldsworthy deposits required the construction of seventy miles of railway to the port at Port Hedland. Both projects included the development of port facilities with ore loading equipment, and the dredging of channels to the loading wharves. A two-million tons per annum pelletisation plant is under construction at Dampier and is to commence production in 1968. Details of major export contracts for the sale of iron ore were shown in the previous issue of the Year Book (No. 52, page 1048).

In mid-1967 plans were announced for the development of deposits at Mount Newman, Western Australia, by a consortium of companies from Australia, the United States of America, Japan, and the United Kingdom. Contracts were signed to supply 100 million tons of ore to Japan over fifteen years at an approximate value of $820 million. The project involves the construction of a 260-mile railway from Mount Newman to Port Hedland together with associated loading and port facilities.

Production commenced during 1967 from deposits at Koolyanobbing, Western Australia. Ore will be shipped on a recently converted standard gauge railway 304 miles to Kwinana, where a blast furnace is to be completed early in 1968. Initially the ore will be shipped to Port Kembla and Newcastle, New South Wales.

Investigation and negotiations for export contracts continued with respect to deposits at Robe River and Nimingarra in Western Australia.

Steel

In September 1965 it was announced that blast furnace, plate and strip capacity at Port Kembla would be expanded at a cost of $80 million. The complete expansion programme will include coke ovens, new steel making and primary rolling equipment, and additions to the tin-plate plant. The coke ovens and additions to the tin-plate plant were commissioned during 1966.

Lead and zinc

The Australian lead-zinc industry experienced one of the most prosperous periods of its history between 1963 and 1965 as a result of higher prices for its products. Prices fell slightly in 1966, however, which resulted in lower values for mine production of lead and zinc.

A new shaft is to be sunk at one of the four mines at Broken Hill, New South Wales, at an estimated cost of $7 million.

Further exploration has proceeded at the large zinc-lead deposit at McArthur River in the Northern Territory. Metallurgical testing of the zinc-lead ores of this deposit continued, but satisfactory mineral separation has not yet been achieved.

Black coal

There has been a significant revival in the Australian black coal industry in recent years as a result of increased exports and increased consumption of black coal in iron and steel production and electricity generation. These increases have more than balanced reduced consumption in some applications due to competition from fuel oil.

The expansion of the export trade has been of major significance. In 1955 exports were about 200,000 tons valued at about $1.7 million; in 1966 exports were 8.3 million tons valued at $65.6 million. These increased exports have been almost wholly to Japan for use in the iron and steel industry. As a result of this increased demand, new mines have been opened and are under development in Queensland and New South Wales, and many established mines are being expanded. Exploration for coal has been stimulated, and in early 1967 there were indications that a further rich deposit of coking coal had been located in Queensland.

Details of agreements for exports of coal were shown in the last issue of the Year Book (No. 52, page 1049). During 1966 a further major contract for the export of coal from the Moura, Queensland, field of 15 million tons to Japan over ten years from 1968 was announced.

Petroleum

Petroleum exploration in Australia continued to expand in 1966 and early 1967, and encouraging discoveries during this period, although still small by world standards, have been a stimulus to further exploration. Developments in the last few years were reviewed in previous issues of the Year Book (No. 48 pages 1094–8, No. 51, page 1179 and No. 52, page 1050). A summary of developments in 1966 and early 1967 follows.

Australia now has four commercial oilfields, Moonie, Alton and Conloi in Queensland (connected by pipeline to Brisbane, Queensland), and at Barrow Island, Western Australia, capable of supplying about 6 per cent of the nation's requirements. The oilfield at Barrow Island was commissioned in April 1967 when the first shipment of oil was despatched to Kwinana, Western Australia, for refining.

Commercial production of natural gas, currently restricted to the Roma field in Queensland, is planned for deposits at Gidgealpa and Moomba in South Australia, and off-shore Victoria. Further expansion of production from the Roma field is envisaged. It is expected that a pipeline from the Roma field to Brisbane, at a cost of $11 million, is to be completed by the end of 1968. A pipeline is planned from Gidgealpa and Moomba field 500 miles to Adelaide. A pipeline from off-shore deposits on the Gippsland shelf of Victoria will serve Melbourne and areas of Victoria. An absorption plant is under construction at Sale, Victoria, and off-shore platforms for drilling production wells are also under construction.

Considerable attention has been given recently to off-shore exploration, particularly off the Victorian coast where several substantial gas and oil flows have been discovered. Several off-shore drilling rigs of various types have been transported from other countries and a semi-submersible rig has been constructed at the shipbuilding works at Whyalla, South Australia.

Proposals have been made for uniform Australian legislation to control and administer the off-shore search for oil. These proposals are outlined on pages 1068–9

Early in 1965 the Tariff Board conducted a public enquiry to determine an appropriate price for Australian crude oil, having regard to the Commonwealth Government's desire to encourage the search for oil and the consequent need to offer sufficient incentive to exploration companies. At the same time the Government indicated that it was anxious to prevent or minimise increased costs of petroleum products to consumers, and to ensure that refineries using Australian crude oil were not detrimentally affected in relation to other refineries. Evidence was heard from oil exploration, marketing and refining interests, government officials, coal and power interests, and major users of refined petroleum products. The Tariff Board subsequently recommended that Australian crude oil should be valued at $US 2.48 a barrel at the nearest refining centre, plus a differential for the quality of the oil produced. The Board also recommended an additional margin of 25 cents a barrel to provide an incentive for increased exploration activity. The Government adopted the Tariff Board's recommendations, but raised the incentive margin to 75 cents. As a result, the price for Moonie crude is $US 3.50 a barrel delivered Brisbane, made up as follows: crude oil value, $US 2.48; incentive margin, $US 0.75; quality differential, $US 0.27. This pricing structure will operate for five years, but the Government will consider reviewing the valuation during this period if it considers that the incentive to exploration has proved inadequate.

In order to ensure that local crude oil is used in Australian refineries, the Government has also adopted the Tariff Board's recommendation to impose penal import duties of 0.8 cents a gallon on crude oil and 2.4 cents a gallon on motor spirit to be paid by those companies which do not take their share of local crude oil. The share of local crude to be taken will be based on the importer's share of total imports of refinery feedstock or refined products or both.

Any oil found in the Territory of Papua and New Guinea will be covered by these policies in the same way as oil found in Australia.

Mineral exploration

Increased interest in the potentialities of the mining industry in Australia since 1960 have seen a considerable expansion in mineral exploration, and several major discoveries have resulted. Some discoveries have been mentioned in earlier Year Books or other parts of this section. Details of other major discoveries follow.

Nickel

Significant discoveries of nickel have been made near Kambalda. Western Australia. Mining operations at Kambalda commenced in mid-1967, and the company concerned has obtained a contract to sell 40,000 tons of contained nickel over ten years to Japan.

Phosphate

Major deposits of phosphate rock were discovered during 1966 near Duchess in north-west Queensland. The deposits are large by world standards, and feasibility studies are in progress.

Silver-lead-zinc

A discovery of a silver-lead-zinc deposit was made by the Bureau of Mineral Resources at Rum Jungle in the Northern Territory towards the end of 1966. Further drilling is continuing.

CHAPTER 27

MANUFACTURING INDUSTRY

Further detail on the subjects dealt with in this chapter is contained in the annual printed bulletins *Manufacturing Industry* and *Manufacturing Commodities*, formerly *Secondary Industries*, Parts I and II. Information is also published, as soon as the data can be prepared, in a series of thirty-five annual mimeographed bulletins, *Manufacturing Industries*, each relating to a particular industry or group of industries. Details of the industries covered are contained in Statistical and other official publications of Australia of the Miscellaneous chapter. Advance annual information is published in mimeographed form in *A Summary of Principal Statistics of Factories* and in *Principal Factory Products*. Current information on factory products is available in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*. Preliminary annual statements (*Factory Statistics*) and *Principal Statistics of Factories, by Class of Industry* and a monthly statement (*Production Statistics*) are also issued.

In addition to the above-mentioned publications, there is also a series of fifty-one *Monthly Production Summaries*, each relating to the production of a particular commodity or group of commodities (*see* reference above to Statistical publications).

In this issue of the Year Book factory statistics have been advanced by two years to 1965-66, but details for the year 1964–65 have been omitted in respect of some tables. The information thus omitted is available in *Manufacturing Industry*, 1964–65, Bulletin No. 2 and in the mimeographed statement *A Summary of Principal Statistics of Factories*, No. 17, 1964–65.

Introduction

A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906, and figures on this basis were prepared for 1907 and subsequent years.

An historical summary of the development of the manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book (*see* No. 51, pages 143–4).

Decentralisation of manufacturing industries

The decentralisation of secondary industries, and the steps taken by Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book (*see* No. 51, page 144).

Bounties on manufacture

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable, and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (*See* Chapter 20, Public Finance for products on which bounties are paid.)

Standardisation

The Commonwealth Scientific and Industrial Research Organization has functions concerned with the improvement of efficiency in industrial operations. For further particulars *see* the chapter Education, Cultural Activities and Research of this Year Book.

The Standards Association of Australia is the national standardising organisation, and issues Australian standard specifications and test methods for materials and products and standard codes of practice.

The Standards Association was established in July 1929 by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It was incorporated by Royal Charter in 1950. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and of industry. Half of its funds are provided by Commonwealth Government grant, the remainder coming from membership subscriptions, other contributions, and sale of publications. Organisations, companies and individuals are eligible for subscription membership.

The governing body of the Association is a Council, on which industry is fully represented, together with official representatives of the Commonwealth and State Governments and their technical departments, and of scientific, professional and commercial organisations. Voluntary assistance is rendered in the drafting of specifications and codes by several thousand individuals who are experts in their particular fields. They are organised into some hundreds of committees. These committees are grouped under broad industry divisions, including building construction and civil engineering, electrical engineering, mechanical engineering, chemical, timber, plastics, packaging, and iron and steel.

The Association publishes standards of many kinds for the benefit of industry and commerce. Its specifications provide a suitable standard of performance, quality and dimension, and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery, and without the necessity of drafting individual specifications. As a rule the Association creates national standards based on Australian practices, but attention is also given to international recommendations issued by the international standards bodies referred to below. There is also some endorsement of British standards, with or without modification. More than 1,500 Australian standards have been published and more than 600 projects are in hand.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardisation be arrived at by general consent without coercion. The Association has two specialised libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organisations. These libraries serve to provide necessary material for committee work and also give freely a service to those concerned with standards or related matters, e.g. to importers and exporters seeking details of practice in other countries.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electro-technical Commission (IEC). Close links are maintained with the British Standards Institution and the standards organisations of other British Commonwealth countries. The Association is the Australian agent of the British Standards Institution and can supply all British standards. Its functions are linked to some extent with those of the National Association of Testing Authorities in that whereas the Standards Association establishes and publishes standard test methods, the Association of Testing Authorities works to ensure that registered testing laboratories maintain their level of competence.

The headquarters office of the Association is in Sydney and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

The National Association of Testing Authorities organises testing facilities throughout Australia to serve private and governmental needs.

Membership is open to authorities whose testing laboratories conform to the standards of staffing and operation defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of metrology, mechanical testing, electrical testing, optics and photometry, non-destructive testing, heat and temperature measurement, chemical testing, biological testing, and acoustic and vibration measurement. At the end of 1966 there were 570 laboratories registered with the Association, which had a further eighty applications for registration before it.

The Industrial Design Council of Australia was established in June 1958 for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. It has a membership fully representative of industry, commerce and government, together with designers and educationists and is financed by donations from industry and by Commonwealth grants. The Council is responsible for the Australian Design Index which provides a detailed, illustrated record of well-designed Australian products. A Record of Designers has been set up to register information about industrial designers and their work. The Council is also concerned, in co-operation with education authorities, with raising the standard of training in industrial design. For further particulars *see* Year Book No. 51, page 145.

Definitions in factory statistics

The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States from returns supplied to them annually by manufacturers in accordance with the statistical Acts of the States and the Commonwealth. A return must be supplied in respect of every *factory*, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries), but does not cover smallgoods makers, laundries, photography studios, florists and seedsmen, or most abattoirs. Details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars of the number, age, etc. of their employees, salaries and wages paid, the value of premises and equipment, the horsepower of machinery, the value of raw materials (including containers), tools replaced, etc., the values and in most cases the quantities of fuel used, and quantities and values of principal materials used and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

All *persons employed* in the manufacturing activities of a factory are counted as factory employees, including working proprietors and 'out-workers'.

The *average number of persons* employed is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

Value of materials used includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced, and materials used in repairs to plant.

Value of fuel, etc., used includes also the cost of power and light used, of lubricants and of water.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture concerned, and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article. In the special case of government factories and workshops, the value of output is, in most cases, estimated by adding ten per cent to the value of materials and fuel used and other factory costs, including salaries and wages paid.

The *value of production* is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges). In the process of manufacture many goods are treated in several industries, the output of one becoming the raw material of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, timber from the sawmills used in furniture factories and in joinery, and synthetic resins from chemical works used to make plastic products. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of output, is used as a measure of activity in the manufacturing industries as a whole.

The *rated horse-power of engines used* for factories other than central electric stations relates to the rated horse-power of engines ordinarily in use.

Statistics relating to factory activity in the Australian Capital Territory and Northern Territory are included in the figures contained in this chapter as from 1 July 1964, unless otherwise indicated.

A standard classification of manufacturing industries is used in compiling statistical data relating to factories in Australia. It is designed in accordance with decisions of the 1945 Conference of Statisticians, and represents a revision and extension of a new classification which was introduced in 1930–31, replacing the revised versions of the original classification formulated in 1902.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Some particulars of certain of the sub-classes shown below are published in the latter portion of this chapter, and full details for all sub-classes may be found in the bulletin *Manufacturing Industry* (previously entitled *Secondary Industries*, Part I—*Factory and Building Operations*).

The classes and sub-classes in the current classification of factories are as follows.

CLASSIFICATION OF FACTORIES

Class 1. Treatment of Non-metalliferous Mine and Quarry Products

1. Coke works
2. Briquetting and pulverised coal
3. Carbide
4. Lime, plaster of paris, asphalt
5. Fibrous plaster and products
6. Marble, slate, etc.
7. Cement, portland
8. Asbestos cement sheets and mouldings
9. Other cement goods
10. Other

Class 2. Bricks, Pottery, Glass, etc.

1. Bricks and tiles
2. Earthenware, china, porcelain, and terracotta
3. Glass (other than bottles)
4. Glass bottles
5. Other

Class 3. Chemicals, Dyes, Explosives, Paints, Oils, Grease

1. Industrial and heavy chemicals and acids
2. Pharmaceutical and toilet preparations
3. Explosives (including fireworks)
4. White lead, paints and varnish
5. Oils, vegetable
6. Oils, mineral
7. Oils, animal
8. Boiling-down, tallow-refining
9. Soap and candles
10. Chemical fertilisers
11. Inks, polishes, etc.
12. Matches
13. Other

Class 4. Industrial Metals, Machines, Conveyances

1. Smelting, converting, refining, rolling of iron and steel
2. Foundries (ferrous)
3. Plant, equipment and machinery, including machine tools
4. Other engineering
5. Extracting and refining of other metals; alloys
6. Electrical machinery, cables and apparatus

7–16. Construction and repair of vehicles (10 groups)

17, 18. Ship and boat building and repairing, marine engineering (government and other)

19. Cutlery and small hand tools
20. Agricultural machines and implements

Non-ferrous metals—

21. Rolling and extrusion
22. Founding, casting, etc.
24. Sheet metal working, pressing and stamping
25. Pipes, tubes and fittings—ferrous
26. Wire and wire working (including nails)
27. Stoves, ovens and ranges
28. Gas fittings and meters
29. Lead mills
30. Sewing machines
31. Arms, ammunition (excluding explosives)
32. Wireless and amplifying apparatus
33. Other metal works

Class 5. Precious Metals, Jewellery, Plate

1. Jewellery
2. Watches and clocks (including repairs)
3. Electroplating (gold, silver, chromium, etc.)

Class 6. Textiles and Textile Goods (not (Dress

1. Cotton ginning
2. Cotton spinning and weaving
3. Wool—carding, spinning, weaving
4. Hosiery and other knitted goods
5. Silk, natural
6. Rayon, acrylics and other synthetic fibres
7. Flax mills
8. Rope and cordage
9. Canvas goods, tents, tarpaulins, etc.
10. Bags and sacks
11. Textile dyeing, printing and finishing
12. Other

Class 7. Skins and Leather (not Clothing or Footwear)

1. Furriers and fur-dressing
2. Woolscouring and fellmongery
3. Tanning, currying and leather-dressing
4. Saddlery, harness and whips
5. Machine belting (leather or other)
6. Bags, trunks and other goods of leather and leather substitutes

Class 8. Clothing (except Knitted)

1. Tailoring and ready-made clothing
2. Waterproof and oilskin clothing
3. Dressmaking, hemstitching
4. Millinery
5. Shirts, collars, underclothing
6. Foundation garments
7. Handkerchiefs, ties and scarves
8. Hats and caps
9. Gloves
10. Boots and shoes (not rubber)
11. Boot and shoe repairing
12. Boot and shoe accessories
13. Umbrellas and walking sticks
14. Dyeworks and cleaning, etc.
15. Other

Class 9. Food, Drink and Tobacco

1. Flour-milling
2. Cereal foods and starch
3. Animal and bird foods
4. Chaffcutting and corncrushing
5. Bakeries (including cakes and pastry)
6. Biscuits
7. Sugar-mills
8. Sugar-refining
9. Confectionery (including chocolate and icing sugar)
10. Jam, fruit and vegetable canning
11. Pickles, sauces, vinegar
12. Bacon curing
13. Butter factories
14. Cheese factories

CLASS 9. FOOD, DRINK AND TOBACCO—*continued*

15. Condensed and dried milk factories
16. Margarine
17. Meat and fish preserving
18. Condiments, coffee, spices
19. Ice and refrigerating
20. Salt
21. Aerated waters, cordials, etc.
22. Breweries
23. Distilleries
24. Wine-making
25. Cider and perry
26. Malting
27. Bottling
28. Tobacco, cigars, cigarettes, snuff
29. Dehydrated fruit and vegetables
30. Ice cream
31. Sausage casings
32. Arrowroot
33. Other

CLASS 10. SAWMILLS, JOINERY, BOXES, ETC., WOOD TURNING AND CARVING

1. Sawmills
2. Plywood mills (including veneers)
3. Bark mills
4. Joinery
5. Cooperage
6. Boxes and cases
7. Woodturning, woodcarving, etc.
8. Basketware and wickerware (including sea-grass and bamboo furniture)
9. Perambulators (including pushers and strollers)
10. Wall and ceiling boards (not plaster or cement)
11. Other

CLASS 11. FURNITURE OF WOOD, BEDDING, ETC.

1. Cabinet and furniture making (including billiard tables and upholstery)
2. Bedding and mattresses (not wire)
3. Furnishing drapery
4. Picture frames
5. Blinds

CLASS 12. PAPER, STATIONERY, PRINTING, BOOKBINDING, ETC.

1. Newspapers and periodicals

   Printing—

2. Government
3. General, including bookbinding
4. Manufactured stationery
5. Stereotyping, electrotyping
6. Process and photo engraving
7. Cardboard boxes, cartons and containers
8. Paper bags
9. Paper-making
10. Pencils, penholders, chalks, crayons
11. Other

CLASS 13. RUBBER

1. Rubber goods (including tyres made)
2. Tyre retreading and repairing

CLASS 14. MUSICAL INSTRUMENTS

1. Gramophones and gramophone records
2. Pianos, piano-players, organs
3. Other

CLASS 15. MISCELLANEOUS PRODUCTS

1. Linoleum, leather-cloth, oil-cloth, etc.
2. Bone, horn, ivory, and shell
3. Plastic moulding and products
4. Brooms and brushes
5. Optical instruments and appliances
6. Surgical and other scientific instruments and appliances
7. Photographic material (including developing and printing)
8. Toys, games and sports requisites
9. Artificial flowers
10. Other

CLASS 16. HEAT, LIGHT, AND POWER

1–3. Electric light and power
4–6. Gas works

Factory development since 1901, Australia

The development of the manufacturing industries in Australia at intervals since 1901 is summarised in the following table.

FACTORIES: AUSTRALIA(*a*), 1901 TO 1965-66

Year	Factories	Employment(*b*)	Salaries and wages paid(*c*)	Value of— Materials and fuel used	Value of— Output	Value of— Production (*d*)	Value of— Land and buildings	Value of— Plant and machinery
	No.	'000	$'000	$'000	$'000	$'000	$'000	$'000
1901	11,143	198	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1911	14,455	312	55,056	163,526	266,044	102,518	65,402	63,032
1920–21	17,113	367	125,864	427,118	647,986	220,868	121,662	137,310
1930–31	21,751	339	124,910	344,978	581.598	236,620	224,422	248,996
1940–41	27,300	650	275,838	773,762	1,289,590	515,828	288.188	322,712
1950–51	43,147	969	983,436	2,613.926	4,301,670	1,687,744	605,570	673,230
1960–61	57,782	1,145	2,289,230	6,115,930	10,465,765	4,349,835	2,389,140	2,785,565
1961–62	58,450	1,121	2,286,550	6,113,465	10,508,098	4,394,635	2,809,641	3,052,079
1962–63	59,147	1,168	2,446,694	6,688,062	11,483,303	4,795.241	3.006,820	3,286,533
1963–64	59,375	1,210	2,651,620	7,372,682	12,642,686	5,270,003	3,204,685	3,480,673
1964–65	61,042	1,269	2,993,709	8,140,600	14,037,355	5,896,754	3,505,859	3,766,253
1965–66	61,686	1,294	3,162,769	8,443,953	14,719,308	6,275,355	3,776,698	4,156,285

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (*c*) Excludes drawings by working proprietors. (*d*) Value added in process of manufacture (i.e. value of output less value of materials and fuel, etc. used).

Number of factories

Number in each State and Territory

FACTORIES: NUMBER, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (a)
1961–62 . .	23,629	17,300	5,824	5,519	4,418	1,760	n.a.	n.a.	58,450
1962–63 . .	23,729	17,501	5,895	5,766	4,492	1,764	n.a.	n.a.	59,147
1963–64 . .	23,642	17,597	5,955	5,826	4,609	1,746	n.a.	n.a.	59,375
1964–65 . .	24,368	17,925	5,962	5,887	4,734	1,805	174	187	61,042
1965–66 . .	24,531	17,980	6,010	6,065	4,906	1,792	185	217	61,686

(a) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Number by class of industry

The next table shows the number of factories in Australia classified to the industrial classes agreed upon by the Conference of Statisticians in 1930.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, AUSTRALIA(a)
1961-62 TO 1965-66

Class of industry	1961–62	1962–63	1963–64	1964–65	1965–66
1. Treatment of non-metalliferous mine and quarry products	1,454	1,494	1,517	1,557	1,611
2. Bricks, pottery, glass, etc.	694	692	692	689	678
3. Chemicals, dyes, explosives, paints, oils, grease	1,285	1,288	1,303	1,325	1,354
4. Industrial metals, machines, conveyances .	24,193	24,914	25,415	26,665	27,549
5. Precious metals, jewellery, plate . . .	911	918	927	980	970
6. Textiles and textile goods (not dress) . .	1,386	1,368	1,358	1,373	1,360
7. Skins and leather (not clothing or footwear) .	671	656	645	639	631
8. Clothing (except knitted)	7,561	7,614	7,447	7,450	7,271
9. Food, drink and tobacco	7,251	7,161	7,034	7,060	6,938
10. Sawmills, joinery, boxes, etc., wood turning and carving	5,634	5,521	5,422	5,454	5,402
11. Furniture of wood, bedding, etc. . . .	2,157	2,154	2,181	2,210	2,200
12. Paper, stationery, printing, bookbinding, etc.	2,739	2,774	2,828	2,937	2,971
13. Rubber	650	659	674	705	711
14. Musical instruments	85	86	82	76	73
15. Miscellaneous products	1,409	1,486	1,494	1,575	1,627
Total, classes 1 to 15	*58,080*	*58,785*	*59,019*	*60,695*	*61,346*
16. Heat, light and power	370	362	356	347	340
Grand total	**58,450**	**59,147**	**59,375**	**61,042**	**61,686**

(a) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The following table shows the number of factories in each State and Territory classified by nature of industry.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, STATES AND TERRITORIES 1965-66

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment of non-metalliferous mine and quarry products	537	488	142	206	156	58	12	12	1,611
2. Bricks, pottery, glass, etc.	296	176	52	73	49	23	3	6	678
3. Chemicals, dyes, explosives, paints, oils, grease	637	391	97	106	87	30	5	1	1,354
4. Industrial metals, machines, conveyances	11,077	7,470	2,618	3,051	2,449	676	102	106	27,549
5. Precious metals, jewellery, plate	387	252	42	171	93	19	..	6	970
6. Textiles and textile goods (not dress)	436	775	32	60	34	23	..	..	1,360
7. Skins and leather (not clothing or footwear)	293	224	45	40	24	5	..	..	631
8. Clothing (except knitted)	3,311	2,439	537	539	338	83	7	17	7,271
9. Food, drink and tobacco	2,415	1,918	915	743	623	284	22	18	6,938
10. Sawmills, joinery, boxes, etc., wood turning and carving	1,932	1,361	739	451	449	425	17	28	5,402
11. Furniture of wood, bedding, etc.	822	621	284	211	190	62	2	8	2,200
12. Paper, stationery, printing, bookbinding, etc.	1,256	1,071	230	192	160	48	4	10	2,971
13. Rubber	250	188	124	58	60	20	6	5	711
14. Musical instruments	35	16	6	10	6	..	..	..	73
15. Miscellaneous products	764	538	85	120	100	20	..	..	1,627
Total, classes 1 to 15	*24,448*	*17,928*	*5,948*	*6,031*	*4,818*	*1,776*	*180*	*217*	*61,346*
16. Heat, light and power	83	52	62	34	88	16	5	..	340
Grand total	24,531	17,980	6,010	6,065	4,906	1,792	185	217	61,686

Classification of factories by number of persons employed

The classification of factories in the tables on pages 1111–13 is based on the average weekly number of persons employed during the period of operation (including working proprietors).

The following two tables show the number of factories and the average number of persons employed therein, classified by the average number of persons employed.

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, STATES AND TERRITORIES, 1965-66

Persons employed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF FACTORIES									
Under 4	10,267	5,935	2,043	2,924	2,421	753	74	65	24,482
4	1,956	1,497	547	456	394	137	18	15	5,020
5 to 10	5,504	4,393	1,601	1,180	1,003	434	67	65	14,247
11 to 20	3,028	2,553	815	681	494	229	14	40	7,854
21 to 50	2,160	2,006	576	464	381	145	11	24	5,767
51 to 100	818	807	216	191	123	52	1	3	2,211
101 to 200	428	439	117	90	57	20	..	3	1,154
201 to 300	137	145	51	29	20	9	..	1	392
301 to 400	68	65	13	15	7	1	..	..	169
401 to 500	45	41	13	8	..	4	..	..	111
501 to 750	51	53	10	10	3	1	..	1	129
751 to 1,000	29	18	4	5	1	3	..	..	60
Over 1,000	40	28	4	12	2	4	..	..	90
Total	24,531	17,980	6,010	6,065	4,906	1,792	185	217	61,686

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, STATES AND TERRITORIES, 1965–66—*continued*

Persons employed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED									
Under 4	18,761	11,591	4,194	5,107	4,440	1,447	153	137	45,830
4	7,824	5,988	2,188	1,824	1,576	548	72	60	20,080
5 to 10	38,269	30,627	10,981	8,116	6,919	3,003	453	476	98,844
11 to 20	44,118	37,581	11,791	9,965	7,092	3,341	202	596	114,686
21 to 50	68,010	63,066	18,208	14,959	11,930	4,629	360	721	181,883
51 to 100	57,170	57,050	14,938	13,437	8,525	3,854	69	245	155,288
101 to 200	60,534	62,410	16,689	13,029	7,714	2,911	..	418	163,705
201 to 300	33,235	34,930	12,698	6,999	4,908	2,117	..	241	95,128
301 to 400	24,053	22,816	4,456	5,423	2,414	326	..	..	59,488
401 to 500	19,925	18,146	5,827	3,499	..	1,849	..	..	49,246
501 to 750	30,947	32,160	6,261	6,197	1,543	539	..	626	78,273
751 to 1,000	25,056	14,959	3,532	4,156	812	2,551	..	..	51,066
Over 1,000	94,480	51,009	6,187	26,037	3,721	7,472	..	..	188,906
Total	**522,382**	**442,333**	**117,950**	**118,748**	**61,594**	**34,587**	**1,309**	**3,520**	**1,302,423**
Average per factory	21.29	24.60	19.63	19.58	12.55	19.30	7.08	16.22	21.11

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, AUSTRALIA(*a*), 1961-62 TO 1965-66

Year	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Establishments	Persons employed	Establishments	Persons employed	Establishments	Persons employed	Establishments	Persons employed
1961–62—								
Number	49,546	261,679	7,111	296,907	1,793	570,580	58,450	1,129,166
Average per establishment	..	5.28	..	41.75	..	318.23	..	19.32
1962–63—								
Number	50,056	265,388	7,218	304,764	1,873	604,981	59,147	1,175,133
Average per establishment	..	5.30	..	42.22	..	323.00	..	19.87
1963–64—								
Number	49,952	266,153	7,477	315,655	1,946	635,712	59,375	1,217,520
Average per establishment	..	5.33	..	42.22	..	326.68	..	20.51
1964–65—								
Number	51,199	273,427	7,784	327,738	2,059	676,554	61,042	1,277,719
Average per establishment	..	5.34	..	42.10	..	328.58	..	20.93
1965–66—								
Number	51,603	279,440	7,978	337,171	2,105	685,812	61,686	1,302,423
Average per establishment	..	5.42	..	42.26	..	325.80	..	21.11

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Classes of industry

In the following table factories are classified by industrial classes in the same broad groups.

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED AND CLASS OF INDUSTRY, AUSTRALIA, 1965-66

Class of industry	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Establishments	Persons employed	Establishments	Persons employed	Establishments	Persons employed	Establishments	Persons employed
1. Treatment of non-metalliferous mine and quarry products . . .	1,390	7,293	178	7,319	43	11,600	1,611	26,212
2. Bricks, pottery, glass, etc.	411	3,193	214	9,766	53	14,334	678	27,293
3. Chemicals, dyes, explosives, paints, oils, grease .	947	6,075	285	13,578	122	33,713	1,354	53,366
4. Industrial metals, machines, conveyances . .	23,763	121,946	2,907	121,310	879	361,046	27,549	604,302
5. Precious metals, jewellery, plate	918	3,727	49	1,742	3	471	970	5,940
6. Textiles and textile goods (not dress)	802	5,885	378	16,964	180	52,511	1,360	75,360
7. Skins and leather (not clothing or footwear) .	488	3,122	125	5,319	18	3,431	631	11,872
8. Clothing (except knitted) .	5,978	30,460	1,103	45,544	190	36,955	7,271	112,959
9. Food, drink and tobacco	5,770	30,463	895	39,659	273	73,939	6,938	144,061
10. Sawmills, joinery, boxes, etc., wood turning and carving	4,745	28,344	599	23,323	58	9,757	5,402	61,424
11. Furniture of wood, bedding, etc.	1,908	9,920	270	10,353	22	3,631	2,200	23,904
12. Paper, stationery, printing, bookbinding, etc. . .	2,199	15,973	628	26,823	144	44,584	2,971	87,380
13. Rubber	623	3,055	57	2,499	31	14,903	711	20,457
14. Musical instruments .	63	284	9	365	1	115	73	764
15. Miscellaneous products .	1,348	8,394	230	10,311	49	12,710	1,627	31,415
Total, classes 1 to 15 .	*51,353*	*278,134*	*7,927*	*334,875*	*2,066*	*673,700*	*61,346*	*1,286,709*
16. Heat, light and power .	250	1,306	51	2,296	39	12,112	340	15,714
Grand total . .	51,603	279,440	7,978	337,171	2,105	685,812	61,686	1,302,423

Employment in factories

Number employed

All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and 'out-workers' (*see* page 1117), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods, and retailing storemen, are excluded. From 1960–61 the occupational groupings collected have been—(i) working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draftsmen and other laboratory and research staff; and (iv) foremen and overseers, workers in factory and others, in which were amalgamated the three former groups—(iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers, and persons working regularly at home.

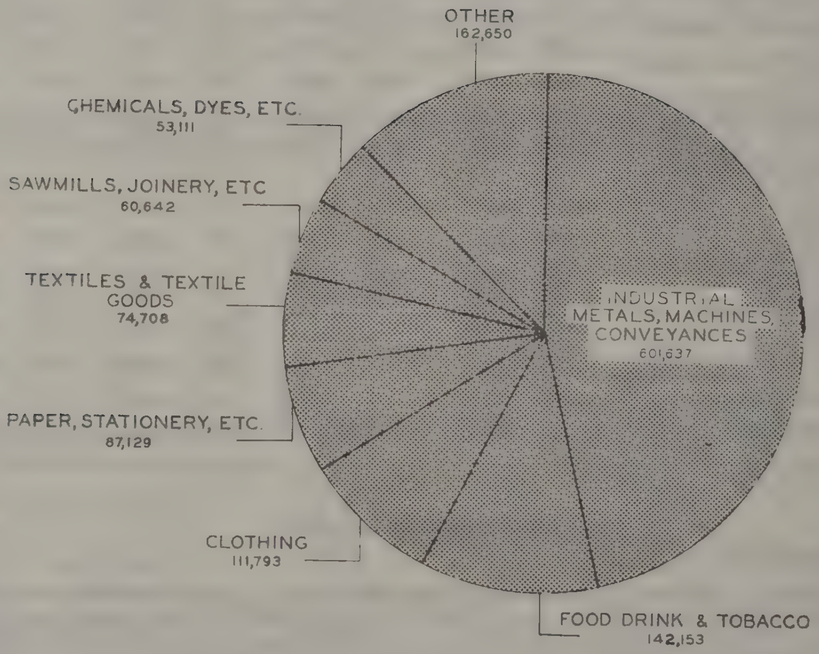
Statistics of factory employment represent the equivalent average number employed over a full year of fifty-two weeks except for the classification of factories according to the number of persons employed (*see* page 1111), which is based on the average number employed over the period worked.

Particulars of the numbers employed in Australia, the increase in employment, and the rate per cent of such increase are given in the table on page 1115.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED

BY INDUSTRY

AUSTRALIA, 1965-66



TOTAL: 1,293,823 PERSONS

PLATE 55

FACTORIES: EMPLOYMENT, AUSTRALIA(*a*), 1961-62 TO 1965-66

Year	Males			Females			Persons		
	Number employed	Increase on preceding year		Number employed	Increase on preceding year		Number employed	Increase on preceding year	
		Number	Per cent		Number	Per cent		Number	Per cent
1961–62 . . .	857,971	−14,661	−1.68	263,299	−9,421	−3.45	1,121,270	−24,082	−2.10
1962–63 . . .	888,721	30,750	3.58	278,832	15,533	5.90	1,167,553	46,283	4.13
1963–64 . . .	918,130	29,409	3.31	291,790	12,958	4.65	1,209,920	42,367	3.63
1964–65 . . .	957,261	39,131	4.26	311,674	19,884	6.81	1,268,935	59,015	4.88
1965–66 . . .	973,411	16,150	1.69	320,412	8,738	2.80	1,293,823	24,888	1.96

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.
Minus sign (−) indicates decrease.

The following table shows the average number of persons employed in manufacturing industries; the percentage for each State and Territory of the total number employed in factories in Australia; and the number so employed per thousand of mean population in each State and Australia.

FACTORIES: EMPLOYMENT, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
verage number employed during full year (fifty-two weeks)—									
1961–62 . . .	461,087	378,349	101,637	99,094	51,033	30,070	n.a.	n.a.	1,121,270
1962–63 . . .	475,249	397,851	104,998	105,265	53,435	30,755	n.a.	n.a.	1,167,553
1963–64 . . .	487,753	413,120	110,696	110,813	55,705	31,833	n.a.	n.a.	1,209,920
1964–65 . . .	508,979	432,413	116,246	116,183	58,097	32,580	1,210	3,227	1,268,935
1965–66 . . .	519,364	439,149	117,581	118,343	60,282	34,315	1,294	3,495	1,293,823
ercentage of Australian total—									
1961–62 . . .	41.12	33.74	9.06	8.84	4.55	2.68	n.a.	n.a.	100
1962–63 . . .	40.70	34.08	8.99	9.02	4.58	2.63	n.a.	n.a.	100
1963–64 . . .	40.31	34.14	9.15	9.16	4.60	2.63	n.a.	n.a.	100
1964–65 . . .	40.11	34.08	9.16	9.16	4.58	2.57	0.10	0.25	100
1965–66 . . .	40.14	33.94	9.09	9.15	4.66	2.65	0.10	0.27	100
er 1,000 of population—									
1961–62 . . .	117	128	66	101	68	85	n.a.	n.a.	106
1962–63 . . .	118	132	68	106	70	86	n.a.	n.a.	108
1963–64 . . .	120	134	70	109	71	88	n.a.	n.a.	110
1964–65 . . .	123	138	72	111	72	89	36	38	113
1965–66 . . .	124	138	71	110	73	93	36	38	113

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Rates of increase in employment

The percentage increase on the average number of persons employed in the preceding year is shown below for each State and Territory.

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
1961–62 . .	−2.32	−2.50	−2.70	−0.86	0.72	−0.29	n.a.	n.a.	−2.10
1962–63 . .	3.07	5.15	3.31	6.23	4.71	2.28	n.a.	n.a.	4.13
1963–64 . .	2.63	3.84	5.43	5.27	4.25	3.51	n.a.	n.a.	3.63
1964–65 . .	4.35	4.67	5.01	4.85	4.29	2.35	n.a.	n.a.	4.88
1965–66 . .	2.04	1.56	1.15	1.86	3.76	5.33	6.94	8.30	1.96

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.
Minus sign (−) indicates decrease.

Persons employed, by class of industry

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, AUSTRALIA(*a*), 1961-62 TO 1965-66

Class of industry	1961–62	1962–63	1963–64	1964–65	1965–66
1. Treatment of non-metalliferous mine and quarry products	23,182	23,913	24,704	25,683	26,011
2. Bricks, pottery, glass, etc.	24,108	25,152	25,656	27,002	27,177
3. Chemicals, dyes, explosives, paints, oils, grease	46,830	47,535	49,023	51,498	53,111
4. Industrial metals, machines, conveyances	497,579	525,312	552,795	588,022	601,637
5. Precious metals, jewellery, plate	5,226	5,308	5,543	5,900	5,926
6. Textiles and textile goods (not dress)	67,949	72,022	73,076	75,281	74,708
7. Skins and leather (not clothing or footwear)	11,955	12,264	12,209	12,026	11,807
8. Clothing (except knitted)	104,655	107,932	108,909	110,613	111,793
9. Food, drink and tobacco	128,590	131,301	134,487	138,768	142,153
10. Sawmills, joinery, boxes, etc., wood turning and carving	57,279	57,114	57,650	59,815	60,642
11. Furniture of wood, bedding, etc.	21,374	21,815	22,545	23,251	23,740
12. Paper, stationery, printing, bookbinding, etc.	73,839	76,263	79,250	83,692	87,129
13. Rubber	17,174	18,916	20,261	20,813	20,416
14. Musical instruments	733	749	779	785	764
15. Miscellaneous products	24,682	26,124	27,422	30,057	31,154
Total, classes 1 to 15	*1,105,155*	*1,151,720*	*1,194,309*	*1,253,206*	*1,278,168*
16. Heat, light and power	16,115	15,833	15,611	15,729	15,655
Grand total	**1,121,270**	**1,167,553**	**1,209,920**	**1,268,935**	**1,293,823**

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1965-66

Class of industry(*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products	10,214	7,689	2,702	2,321	1,949	824	69	243	26,01
2. Bricks, etc.	13,125	7,710	1,910	2,277	1,592	369	23	171	27,17
3. Chemicals, etc.	26,011	17,648	2,185	3,296	2,923	1,021	20	7	53,11
4. Industrial metals, machines, etc.	259,500	186,000	45,491	69,592	27,722	11,463	771	1,098	601,63
5. Jewellery, etc.	2,353	2,180	345	549	252	46	..	201	5,92
6. Textiles, etc.	21,547	43,343	2,221	2,807	857	3,933	..	..	74,70
7. Skins, leather, etc.	5,140	3,830	1,189	1,015	585	48	..	..	11,80
8. Clothing, etc.	45,917	48,432	8,039	5,397	3,063	746	20	179	111,79
9. Food, drink, etc.	43,490	43,583	28,871	12,324	8,163	5,358	157	207	142,15
10. Sawmills, etc.	19,638	15,219	9,539	5,934	5,732	4,200	93	287	60,64
11. Furniture, etc.	9,479	6,724	3,075	2,301	1,552	536	12	61	23,74
12. Paper, stationery, etc.	35,417	29,634	7,144	5,452	3,371	5,059	38	1,014	87,12
13. Rubber	7,950	8,230	1,967	1,515	557	144	26	27	20,41
14. Musical instruments	484	199	28	30	23	..	..	..	76
15. Miscellaneous	14,069	13,516	917	1,769	732	151	..	..	31,15
Total, classes 1 to 15	*514,334*	*433,937*	*115,623*	*116,579*	*59,073*	*33,898*	*1,229*	*3,495*	*1,278,16*
16. Heat, light and power	5,030	5,212	1,958	1,764	1,209	417	65	..	15,65
Grand total	**519,364**	**439,149**	**117,581**	**118,343**	**60,282**	**34,315**	**1,294**	**3,495**	**1,293,82**

(*a*) For full titles *see* table above.

Persons employed, by occupational grouping

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY OCCUPATIONAL GROUPING, STATES AND TERRITORIES, 1965-66

State or Territory.	Average number of persons employed				
	Working proprietors	Managerial and clerical staff, etc.(a)	Chemists, draftsmen, etc.	Foremen and overseers, workers in factory and others(b)	Total
New South Wales	14,243	73,729	10,803	420,589	519,364
Victoria	12,586	60,273	9,515	356,775	439,149
Queensland	4,757	14,066	1,582	97,176	117,581
South Australia	3,974	15,531	2,331	96,507	118,343
Western Australia	3,203	6,451	773	49,855	60,282
Tasmania	1,038	3,939	558	28,680	34,315
Northern Territory	93	201	1	999	1,294
Australian Capital Territory	135	618	29	2,713	3,495
Total males	*33,621*	*107,711*	*23,081*	*808,998*	*973,411*
Total females	*6,408*	*67,097*	*2,611*	*244,296*	*320,412*
Total persons	**40,029**	**174,808**	**25,692**	**1,053,294**	**1,293,823**

(a) Includes salaried managers and working directors (b) Includes persons working regularly at home.

The term 'outworker' or 'homeworker' has acquired a special meaning in connection with manufacturing industries, and includes only persons to whom work is given out by factories to be done at home. Persons working regularly at home for factories are included in the group foremen, overseers, workers in factory, and others, and separate details are not available.

Monthly employment

The following tables show the number of persons (excluding working proprietors) employed in factories on the last pay-day of each month.

FACTORIES: MONTHLY EMPLOYMENT, BY SEX, AUSTRALIA(a), 1961-62 TO 1965-66

(EXCLUDING WORKING PROPRIETORS)

Month	1961–62	1962–63	1963–64	1964–65	1965–66
			MALES		
July	809,905	843,123	867,166	911,211	940,995
August	811,299	845,760	869,030	912,301	940,562
September	806,999	847,798	872,381	914,016	939,023
October	816,821	849,866	875,318	915,883	935,842
November	820,987	852,304	879,265	918,029	938,019
December	817,113	847,041	875,159	917,952	931,923
January	822,723	852,999	884,788	922,676	935,635
February	831,156	859,665	893,400	930,968	942,486
March	835,457	862,890	894,393	934,409	944,702
April	832,975	861,180	897,783	934,496	941,325
May	837,562	861,254	898,809	933,759	941,860
June	839,752	863,142	901,507	933,803	940,563

(a) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

FACTORIES: MONTHLY EMPLOYMENT BY SEX, AUSTRALIA(*a*), 1961–62 TO 1965–66—*continued*

Month	1961–62	1962–63	1963–64	1964–65	1965–66
FEMALES					
July	243,925	266,207	274,312	295,743	310,759
August	245,968	267,761	277,063	297,752	311,629
September	248,775	270,536	279,713	301,106	313,559
October	253,573	272,789	283,778	304,287	314,539
November	256,349	273,845	285,296	305,939	315,070
December	255,869	270,355	282,296	301,987	310,424
January	257,832	270,810	283,279	302,729	310,051
February	264,011	276,901	291,966	310,989	317,691
March	267,065	280,285	293,424	315,493	319,760
April	261,611	274,379	290,823	311,114	314,458
May	264,132	273,326	290,301	309,466	313,345
June	264,473	272,074	290,833	308,585	312,896
PERSONS					
July	1,053,830	1,109,330	1,141,478	1,206,954	1,251,754
August	1,057,267	1,113,521	1,146,093	1,210,053	1,252,191
September	1,055,774	1,118,334	1,152,094	1,215,122	1,252,582
October	1,070,394	1,122,655	1,159,096	1,220,170	1,250,381
November	1,077,336	1,126,149	1,164,561	1,223,968	1,253,089
December	1,072,982	1,117,396	1,157,455	1,219,939	1,242,347
January	1,080,555	1,123,809	1,168,067	1,225,405	1,245,686
February	1,095,167	1,136,566	1,185,366	1,241,957	1,260,177
March	1,102,522	1,143,175	1,187,817	1,249,902	1,264,462
April	1,094,586	1,135,559	1,188,606	1,245,610	1,255,783
May	1,101,694	1,134,580	1,189,110	1,243,225	1,255,205
June	1,104,225	1,135,216	1,192,340	1,242,388	1,253,459

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

FACTORIES: MONTHLY EMPLOYMENT, BY SEX, STATES AND TERRITORIES 1965–66

(EXCLUDING WORKING PROPRIETORS)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
MALES									
July	374,347	300,012	95,347	93,250	47,901	26,397	1,091	2,650	940,995
August	373,952	300,217	95,105	93,178	48,034	26,332	1,084	2,660	940,562
September	374,256	299,513	94,271	93,021	47,693	26,463	1,086	2,720	939,023
October	374,029	298,439	93,263	92,132	47,627	26,559	1,079	2,714	935,842
November	375,773	298,992	92,566	91,984	47,853	27,029	1,062	2,760	938,019
December	374,617	298,220	87,685	92,003	48,168	27,452	1,041	2,737	931,923
January	375,595	299,882	87,542	92,626	48,470	27,676	1,045	2,799	935,635
February	377,288	301,388	90,762	92,879	48,777	27,463	1,083	2,846	942,486
March	377,439	302,112	91,317	93,414	49,090	27,353	1,116	2,861	944,702
April	376,103	300,812	91,501	92,683	48,984	27,295	1,136	2,811	941,325
May	375,855	300,408	93,122	92,320	48,857	27,333	1,123	2,842	941,860
June	375,120	299,376	94,043	92,052	48,824	27,143	1,159	2,846	940,563

FACTORIES: MONTHLY EMPLOYMENT, BY SEX
STATES AND TERRITORIES, 1965–66—*continued*

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
FEMALES									
July	129,662	124,566	20,634	21,294	7,981	5,956	101	565	310,759
August	130.130	124,765	20,867	21,317	8,045	5,840	100	565	311,629
September	131,194	125,190	21,132	21,438	8,146	5,791	100	568	313,559
October	131,643	125,860	20,800	21,404	8,410	5,752	100	570	314,539
November	132,008	125,861	20,687	21,442	8,472	5,929	98	573	315,070
December	129,041	124,608	19,818	21,687	8,571	6,032	96	571	310,424
January	128,395	125,169	19,618	21,680	8,396	6,110	98	585	310,051
February	130,544	128,744	20,498	22,340	8,688	6,183	99	595	317,691
March	130,884	129,234	20,647	22,452	9,106	6,743	101	593	319,760
April	129,625	126,559	20,250	21,356	9,196	6,785	102	585	314,458
May	129,330	125,800	20,715	21,211	8,938	6,665	102	584	313,345
June	129,291	125,492	20,962	21,106	8,826	6,547	104	568	312,896
PERSONS									
July	504,009	424,578	115,981	114,544	55,882	32,353	1,192	3,215	1,251,754
August	504,082	424.982	115,972	114,495	56,079	32,172	1,184	3,225	1,252,191
September	505,450	424,703	115,403	114,459	55,839	32,254	1,186	3,288	1,252,582
October	505,672	424,299	114,063	113.536	56,037	32,311	1,179	3,284	1,250,381
November	507,781	424,853	113,253	113,426	56,325	32,958	1,160	3,333	1,253,089
December	503,658	422,828	107,503	113,690	56,739	33,484	1,137	3,308	1,242,347
January	503,990	425,051	107,160	114,306	56,866	33,786	1,143	3,384	1,245,686
February	507,832	430,132	111,260	115,219	57,465	33,646	1,182	3,441	1,260,177
March	508,323	431,346	111,964	115,866	58,196	34,096	1,217	3,454	1,264,462
April	505,728	427,371	111,751	114,039	58,180	34,080	1,238	3,396	1,255,783
May	505,185	426,208	113,837	113,531	57,795	33,998	1,225	3,426	1,255,205
June	504,411	424,868	115,005	113,158	57,650	33,690	1,263	3,414	1,253,459

Distribution of employees according to age

The following table shows the number of each sex employed in Australia in each age group on the last pay day in June.

FACTORIES: DISTRIBUTION OF EMPLOYEES, BY AGE AND SEX, AUSTRALIA(*a*)
JUNE 1962 TO JUNE 1966

(EXCLUDING WORKING PROPRIETORS)

June—	Males			Females			Persons		
	Under 16 years	16 to 20 years	21 years and over	Under 16 years	16 to 20 years	21 years and over	Under 16 years	16 to 20 years	21 years and over
1962	9,176	86,548	744,028	8,764	48,847	206,862	17,940	135,395	950,890
1963	8,736	92,211	762,195	7,852	51,803	212,419	16,588	144,014	974,614
1964	8,632	100,164	792,711	7,130	55,533	228,170	15,762	155,697	1,020,881
1965	7,614	104,477	821,711	5,920	57,226	245,437	13,534	161,703	1,067,148
1966	6,690	105,902	827,971	5,364	56,104	251,428	12,054	162,006	1,079,399

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Distribution of sexes in factories

Average number of males and females employed

The following table shows the average number of males and females employed in factories in each State and Territory.

FACTORIES: MALES AND FEMALES EMPLOYED STATES AND TERRITORIES, 1961-62 TO 1965-66

State or Territory	1961–62	1962–63	1963–64	1964–65	1965–66
			MALES		
New South Wales	349,154	358,116	366,250	379,672	387,181
Victoria	273,949	285,709	295,440	307,006	310,303
Queensland	84,130	86,536	91,123	95,328	96,150
South Australia	81,803	86,655	90,933	94,690	96,194
Western Australia	44,193	46,252	48,163	50,065	51,464
Tasmania	24,742	25,453	26,221	26,768	28,041
Northern Territory	n.a.	n.a.	n.a.	1,098	1,182
Australian Capital Territory	n.a.	n.a.	n.a.	2,634	2,896
Australia(*a*)	**857,971**	**888,721**	**918,130**	**957,261**	**973,411**
			FEMALES		
New South Wales	111,933	117,133	121,503	129,307	132,183
Victoria	104,400	112,142	117,680	125,407	128,846
Queensland	17,507	18,462	19,573	20,918	21,431
South Australia	17,291	18,610	19,880	21,493	22,149
Western Australia	6,840	7,183	7,542	8,032	8,818
Tasmania	5,328	5,302	5,612	5,812	6,274
Northern Territory	n.a.	n.a.	n.a.	112	112
Australian Capital Territory	n.a.	n.a.	n.a.	593	599
Australia(*a*)	**263,299**	**278,832**	**291,790**	**311,674**	**320,412**

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Rate of annual variation for each sex

The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown in the following table.

FACTORIES: ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED, STATES AND TERRITORIES, 1961-62 TO 1965-66

State or Territory	1961–62	1962–63	1963–64	1964–65	1965–66
			MALES		
New South Wales	−1.76	2.57	2.27	3.66	1.98
Victoria	−2.23	4.28	3.41	3.91	1.07
Queensland	−2.73	2.86	5.30	4.61	0.86
South Australia	−0.12	5.93	4.94	4.13	1.59
Western Australia	0.81	4.66	4.13	3.95	2.79
Tasmania	−0.28	2.87	3.02	2.09	4.76
Northern Territory	n.a.	n.a.	n.a.	n.a.	7.65
Australian Capital Territory	n.a.	n.a.	n.a.	n.a.	9.95
Australia(*a*)	**−1.68**	**3.58**	**3.31**	**4.26**	**1.69**
			FEMALES		
New South Wales	−4.06	4.65	3.73	6.42	2.22
Victoria	−3.19	7.42	4.94	6.57	2.74
Queensland	−2.66	5.45	6.02	6.87	2.45
South Australia	−4.24	7.63	6.82	8.11	3.05
Western Australia	0.15	5.01	5.00	6.50	9.79
Tasmania	−0.36	−0.49	5.85	3.56	7.95
Northern Territory	n.a.	n.a.	n.a.	n.a.	. .
Australian Capital Territory	n.a.	n.a.	n.a.	n.a.	1.01
Australia(*a*)	**−3.45**	**5.90**	**4.65**	**6.81**	**2.80**

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Minus sign (−) indicates decrease.

Masculinity of persons employed

The following table shows the proportion of males to females employed in factories in each State and Territory.

FACTORIES: MASCULINITY(*a*) OF PERSONS EMPLOYED STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*b*)
1961–62 . .	312	262	481	473	646	464	n.a.	n.a.	326
1962–63 . .	306	255	469	466	644	480	n.a.	n.a.	319
1963–64 . .	301	251	466	457	639	467	n.a.	n.a.	315
1964–65 . .	294	245	456	441	623	461	980	444	307
1965–66 . .	293	241	449	434	584	447	1,055	483	304

(*a*) Number of males per 100 females. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Employment of females in particular industries

The majority of females in manufacturing industries are employed in four classes, namely: 4., Industrial metals, machines, etc.; 6., Textiles; 8., Clothing; and 9., Food, drink and tobacco. In 1965–66 these industries accounted for 77.52 per cent of all females in factories. In two classes only did the number of females exceed the number of males—in Class 6. Textiles, where there were 141 females to every 100 males, and in Class 8., Clothing, with 287 females to every 100 males. The following table shows the average number of males and females employed in each of the four classes.

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES STATES AND TERRITORIES, 1965-66

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males—									
Industrial metals, etc. . . .	222,535	158,683	41,849	61,244	26,099	10,766	719	1,001	522,896
Textiles and textile goods (not dress)	9,076	17,543	908	1,294	399	1,787	..	..	31,007
Clothing (except knitted) . .	10,829	13,112	1,950	1,804	825	304	10	67	28,901
Food, drink and tobacco . .	29,111	28,551	23,348	8,149	6,006	3,664	133	154	99,116
All other classes .	115,630	92,414	28,095	23,703	18,135	11,520	320	1,674	291,491
Total males .	*387,181*	*310,303*	*96,150*	*96,194*	*51,464*	*28,041*	*1,182*	*2,896*	*973,411*
Females—									
Industrial metals, etc. . . .	36,965	27,317	3,642	8,348	1,623	697	52	97	78,741
Textiles and textile goods (not dress)	12,471	25,800	1,313	1,513	458	2,146	..	..	43,701
Clothing (except knitted) . .	35,088	35,320	6,089	3,593	2,238	442	10	112	82,892
Food, drink and tobacco . .	14,379	15,032	5,523	4,175	2,157	1,694	24	53	43,037
All other classes .	33,280	25,377	4,864	4,520	2,342	1,295	26	337	72,041
Total females .	*132,183*	*128,846*	*21,431*	*22,149*	*8,818*	*6,274*	*112*	*599*	*320,412*

Children employed in factories

Number of children employed

In the returns for the various States and Territories the term 'child' denotes any person under sixteen years of age. The following table shows the number of children of each sex employed in manufacturing industries in June of each year from 1964 to 1966.

FACTORIES: CHILDREN(*a*) EMPLOYED
STATES AND TERRITORIES, JUNE 1964 TO JUNE 1966

State or Territory	June 1964			June 1965			June 1966		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales .	2,854	2,215	5,069	2,435	1,829	4,264	2,212	1,748	3,960
Victoria . . .	2,072	2,207	4,279	1,690	1,614	3,304	1,525	1,488	3,013
Queensland . .	1,987	1,494	3,481	1,835	1,413	3,248	1,369	1,132	2,501
South Australia .	677	721	1,398	528	539	1,067	471	471	942
Western Australia .	919	397	1,316	962	409	1,371	944	430	1,374
Tasmania . .	123	96	219	121	107	228	126	87	213
Northern Territory .	n.a.	n.a.	n.a.	10	..	10	3	..	3
Aust. Capital Territory . . .	n.a.	n.a.	n.a.	33	9	42	40	8	48
Australia(*b*) .	**8,632**	**7,130**	**15,762**	**7,614**	**5,920**	**13,534**	**6,690**	**5,364**	**12,054**

(*a*) Under sixteen years of age. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Industries employing children

The distribution of children employed in factories and the proportion of children employed to total employees, by the main classes of industry employing persons under sixteen years of age, are shown in the following table.

FACTORIES: CHILDREN(*a*) EMPLOYED, BY SEX, AND CLASS OF INDUSTRY
AUSTRALIA, JUNE 1966

Class of industry	Children employed (*a*)		Total employees (*b*)		Proportion (per cent) of children employed to total employees (*b*)	
	Males	Females	Males	Females	Males	Females
Industrial metals, machines, conveyances .	3,245	548	507,907	78,294	0.64	0.70
Textiles and textile goods (not dress) .	210	654	30,379	41,966	0.69	1.56
Clothing (except knitted) . . .	304	2,589	24,222	80,718	1.26	3.21
Food, drink and tobacco . . .	870	581	95,414	41,283	0.91	1.41
Sawmills, joinery, boxes, etc. . . .	649	84	53,131	4,098	1.22	2.05
Furniture of wood, bedding, etc. . .	280	87	16,519	5,177	1.70	1.68
Paper, stationery, printing, bookbinding etc.	574	459	62,661	23,738	0.92	1.93
All other industries	558	362	150,330	37,622	0.37	0.96
Total	**6,690**	**5,364**	**940,563**	**312,896**	**0.71**	**1.71**

(*a*) Under sixteen years of age. (*b*) Excludes working proprietors.

Apprenticeship

Acts are in force in all States for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

Power equipment in factories

Since 1936–37 statistics of power equipment in factories relate to the 'rated horsepower' of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of central electric stations are collected in greater detail. To avoid duplication it is essential that some distinction should be made between central electric stations and other classes of industries. In the following tables central electric stations have been treated separately from other factories.

Rated horse-power of engines in factories other than central electric stations

The following table shows the total number of factories and the total rated horsepower of engines and electric motors ordinarily in use and in reserve or idle during 1965-66.

FACTORIES(*a*): TOTAL RATED HORSEPOWER OF ENGINES AND ELECTRIC MOTORS, STATES AND TERRITORIES, 1965-66

State or Territory	Factories(*a*)	Rated horsepower of engines and motors	
		Ordinarily in use(*b*)	In reserve or idle (omitting obsolete)
New South Wales . .	24,482	3,155,277	438,596
Victoria	17,958	1,993,293	260,944
Queensland . . .	5,962	798,747	108,749
South Australia . .	6,035	728,025	62,317
Western Australia . .	4,821	371,888	53,336
Tasmania	1,778	330,030	49,419
Northern Territory . .	180	6,290	773
Australian Capital Territory	217	12,838	1,891
Australia . . .	**61,433**	**7,396,388**	**976,025**

(*a*) Includes gas works but excludes central electric stations, details of which are shown on pp. 1124-5. (*b*) Excludes motors driven by electricity generated in factories not classified as central electric stations.

Rated horsepower of engines and electric motors ordinarily in use, by type

Particulars of the types and the total rated horsepower of engines, etc., ordinarily in use in factories are given in the two following tables.

FACTORIES(*a*): TOTAL RATED HORSEPOWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, BY TYPE, STATES AND TERRITORIES, 1965-66

State or Territory	Steam		Internal combustion (all types)	Water	Motors driven by electricity		Total (*b*)(*c*)
	Reciprocating	Turbine			Purchased	Own generation (*d*)	
New South Wales	50,835	259,105	64,198	10	2,781,129	135,248	3,155,277
Victoria	16,294	95,919	55,283	890	1,824,907	68,823	1,993,293
Queensland	48,213	190,435	27,112	..	532,987	175,270	798,747
South Australia	3,530	56,534	11,262	..	656,699	32,019	728,025
Western Australia	8,230	13,599	32,843	..	317,216	7,941	371,888
Tasmania	658	..	10,184	1	319,187	689	330,030
Northern Territory	..	..	188	..	6,102	..	6,290
Australian Capital Territory ..	15	30	125	..	12,668	..	12,838
Australia	**127,775**	**615,622**	**201,195**	**901**	**6,450,895**	**419,990**	**7,396,388**

(*a*) Includes gas works but excludes central electric stations, details of which are shown on pp 1124–5. (*b*) Excludes motors driven by electricity generated in factories not classified as central electric stations. (*c*) Excludes particulars in column (*d*).

FACTORIES(*a*): TOTAL RATED HORSEPOWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, BY TYPE. AUSTRALIA(*b*) 1961-62 TO 1965-66

Year	Steam		Internal combustion (all types)	Water	Motors driven by electricity		Total (*c*)(*d*)
	Reciprocating	Turbine			Purchased	Own generation (*e*)	
1961–62.	169,287	359,631	189,649	1,092	5,025,141	308,740	5,744,800
1962–63.	165,312	397,213	193,309	900	5,376,452	322,828	6,133,186
1963–64.	154,628	439,121	198,597	840	5,733,810	335,580	6,526,996
1964–65.	147,417	477,268	194,458	891	6,090,766	362,719	6,910,800
1965–66.	127,775	615,622	201,195	901	6,450,895	419,990	7,396,388

(*a*) Includes gas works but excludes central electric stations, details of which are shown on pp. 1124–5. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*c*) Excludes motors driven by electricity generated in factories not classified as central electric stations. (*d*) Excludes particulars in column (*e*).

Rated horsepower of engines and electric motors ordinarily in use, by class of industry

The next table shows the total rated horsepower of engines and electric motors ordinarily in use in the various classes of industry in each State and Territory.

FACTORIES(*a*): TOTAL RATED HORSEPOWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE(*b*), BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1965–66

Class of industry(*c*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products .	127,680	114,327	38,880	47,565	29,047	21,441	308	469	379,717
2. Bricks, etc. . .	80,360	57,480	14,815	19,886	15,401	4,143	63	1,809	193,957
3. Chemicals, etc. . .	355,531	222,887	56,625	42,113	58,514	20,015	1,176	97	756,958
4. Industrial metals, machines, etc. . .	1,707,093	702,892	148,997	391,957	107,044	66,355	1,713	1,258	3,127,309
5. Jewellery, etc. . .	4,751	4,079	656	1,183	651	101	. .	4,195	15,616
6. Textiles, etc. . .	68,968	128,093	9,241	9,119	3,622	11,350	. .	. .	230,393
7. Skins, leather, etc. .	19,367	16,828	7,040	5,329	3,526	506	. .	. .	52,596
8. Clothing, etc. . .	29,854	33,996	5,643	5,389	2,881	898	30	206	78,897
9. Food, drink, etc. .	261,834	260,709	336,893	74,958	56,748	32,491	1,953	560	1,026,146
10. Sawmills, etc. . .	201,318	133,134	123,206	60,006	61,384	58,026	773	2,803	640,650
11. Furniture, etc. . .	23,774	16,584	9,392	7,498	4,687	1,579	53	119	63,686
12. Paper, stationery, etc.	127,548	138,864	29,274	31,643	19,953	111,966	76	1,165	460,489
13. Rubber	75,070	84,855	12,473	19,213	5,010	552	145	157	197,475
14. Musical instruments .	1,577	279	51	15	11	. .	. .	. .	1,933
15. Miscellaneous . .	51,033	51,288	2,293	4,331	2,013	481	. .	. .	111,439
Total, classes 1 to 15	*3,135,758*	*1,966,295*	*795,479*	*720,205*	*370,492*	*329,904*	*6,290*	*12,838*	*7,337,261*
16. Gas works . .	19,519	26,998	3,268	7,820	1,396	126	. .	. .	59,127
Grand total . .	**3,155,277**	**1,993,293**	**798,747**	**728,025**	**371,888**	**330,030**	**6,290**	**12,838**	**7,396,388**

(*a*) Excludes central electric stations, details of which are shown below. (*b*) Excludes motors driven by electricity generated in factories not classified as central electric stations. (*c*) For full titles *see* table on page 1127.

Capacity of engines and generators installed in central electric stations, by type

Particulars of the type and the capacity of engines and generators installed in central electric stations are given in the two following tables.

CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, BY TYPE AUSTRALIA, 1965–66

Equipment		Capacity of engines and generators				
		Steam		Internal combustion (all types)	Water	Total
		Reciprocating	Turbine			
Engines installed .	rated hp	800	9,218,870	364,747	3,282,931	12,867,348
Generators installed—						
Kilowatt capacity—						
Total installed . .	kW	560	6,770,852	247,888	2,376,585	9.395,885
Effective capacity . .	,,	500	6,617,115	228,185	2,344,985	9,190,785
Horsepower equivalent—						
Total installed . .	hp	751	9,076,192	332,289	3,185,765	12,594,996
Effective capacity . .	,,	670	8,870.110	305,877	3,143,405	12,320,063

CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT STATES AND TERRITORIES, 1965-66

Equipment		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Central electric stations	No.	49	22	48	30	85	14	5	..	253
Engines installed .	rated hp	5,732,197	2,903,307	1,483,530	924,814	632,030	1,150,874	40,596	..	12,867,348
Generators installed—										
Kilowatt capacity—										
Total installed .	kW	4,229,780	2,081,834	1,086,180	688,340	460,972	819,176	29,603	..	9,395,885
Effective capacity .	,,	4,194,183	1,973,961	1,026,229	694,702	455,817	816,290	29,603	..	9,190,785
Horsepower equivalent—										
Total installed .	hp	5,669,935	2,790,657	1,456,003	922,706	617,924	1,098,089	39,682	..	12,594,996
Effective capacity .	,,	5,622,218	2,646,055	1,375,639	931,234	611,014	1,094,220	39,682	..	12,320.063

Value of production, materials used, salaries and wages

In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

The gross value of factory output for 1965–66 was $14,719 million, of which $7,957 million was the value of the materials used, including containers, etc., tools replaced, and repairs to plant and buildings, and $487 million the value of the power, fuel, light, water, and lubricating oil used. The difference between the sum of the last two amounts and the gross value of output, namely, $6,275 million, represents the net value of factory production, defined as 'the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production'. Depreciation, however, is not deducted (*see* p. 1130). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories.

Salaries and wages paid

By class of industry. The amounts of salaries and wages paid in the various classes of industry in each State and Territory are shown in the following table.

FACTORIES: SALARIES AND WAGES PAID, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1965-66

($'000)

Class of industry(*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products .	29,857	22,129	7,424	6,132	4,846	2,169	201	874	73,632
2. Bricks, etc. . .	34,824	20,803	4,948	5,956	3,919	908	69	523	71,949
3. Chemicals . .	73,880	52,476	5,936	9,296	8,398	3,252	108	20	153,366
4. Industrial metals, machines, etc. . .	695,862	492,078	105,892	175,123	63,536	29,877	2,288	2,904	1,567,561
5. Jewellery, etc. . .	4,748	4,891	636	907	368	74	..	720	12,345
6. Textiles, etc. . .	44,679	89,860	3,848	5,597	1,561	7,542	..	..	153,087
7. Skins, leather, etc. .	11,302	8,443	2,662	2,459	1,286	112	..	..	26,263
8. Clothing, etc. . .	75,274	84,886	10,743	7,975	3,826	1,115	19	304	184,142
9. Food, drink . .	102,175	102,107	72,218	26,246	17,447	11,653	461	488	332,796
10. Sawmills, etc. . .	45,046	35,335	19,241	12,300	12,492	9,363	231	830	134,840
11. Furniture, etc. . .	21,025	14,092	6,064	4,148	2,829	949	35	127	49,269
12. Paper, stationery, etc.	94,721	77,755	16,948	13,335	7,619	14,055	116	2,998	227,546
13. Rubber . . .	21,512	22,243	4,100	4,419	1,188	311	88	78	53,938
14. Musical instruments .	1,154	492	42	45	45	..	..	..	1,778
15. Miscellaneous . .	32,740	32,462	1,736	3,557	1,286	275	..	..	72,055
Total, classes 1 to 15	*1,288,799*	*1,060,054*	*262,437*	*277,494*	*130,643*	*81,655*	*3,616*	*9,866*	*3,114,565*
16. Heat, light and power	14,881	17,179	5,609	5,457	3,528	1,307	242	..	48,204
Grand total . .	**1,303,680**	**1,077,234**	**268,046**	**282,951**	**134,171**	**82,963**	**3,859**	**9,866**	**3,162,769**

(*a*) For full titles *see* table on page 1127.

Totals and averages. The following table shows the total amount of salaries and wages paid, and the average amount paid, according to sex, per employee in each State and Territory. The figures exclude working proprietors and the amounts drawn by them.

In comparing the figures in the following table regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands are employed in Class 8., Clothing, comprising a relatively high percentage of women and children.

FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID, STATES AND TERRITORIES, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
MALES									
Total amount paid ($'000)—									
1961–62 .	823,670	631,283	167,525	178,771	85,405	54,496	n.a.	n.a.	1,941,150
1962–63 .	864,505	685,576	175,486	197,821	91,917	57,835	n.a.	n.a.	2,073,141
1963–64 .	927,806	747,177	196,484	215,127	99,978	63,007	n.a.	n.a.	2,249,580
1964–65 .	1,034,044	840,704	226,329	245,565	110,368	68,183	3,298	7,854	2,536,347
1965–66 .	1,092,517	877,256	239,885	252,260	123,022	73,932	3,666	8,819	2,671,358
Average per male employee ($)—									
1961–62 .	2,445	2,397	2,093	2,281	2,053	2,293	n.a.	n.a.	2,356
1962–63 .	2,499	2,491	2,127	2,377	2,109	2,367	n.a.	n.a.	2,425
1963–64 .	2,618	2,621	2,254	2,457	2,201	2,491	n.a.	n.a.	2,542
1964–65 .	2,812	2,833	2,476	2,689	2,337	2,644	3,242	3,091	2,746
1965–66 .	2,913	2,921	2,600	2,720	2,538	2,730	3,333	3,172	2,843
FEMALES									
Total amount paid ($'000)—									
1961–62 .	152,469	139,095	19,165	20,291	7,435	6,944	n.a.	n.a.	345,399
1962–63 .	162,712	153,285	20,345	22,246	7,964	7,002	n.a.	n.a.	373,553
1963–64 .	173,214	165,247	22,278	25,188	8,537	7,575	n.a.	n.a.	402,040
1964–65 .	195,912	187,788	26,029	28,659	9,609	8,332	185	848	457,362
1965–66 .	211,163	199,977	28,160	30,691	11,149	9,030	192	1,047	491,411
Average per female employee ($)—									
1961–62 .	1,387	1,361	1,140	1,220	1,123	1,313	n.a.	n.a.	1,342
1962–63 .	1,413	1,395	1,145	1,241	1,141	1,336	n.a.	n.a.	1,369
1963–64 .	1,448	1,432	1,182	1,312	1,163	1,367	n.a.	n.a.	1,406
1964–65 .	1,537	1,526	1,290	1,372	1,228	1,454	1,799	1,469	1,496
1965–66 .	1,623	1,584	1,369	1,420	1,295	1,457	1,904	1,806	1,565
PERSONS									
Total amount paid ($'000)—									
1961–62 .	976,139	770,379	186,690	199,062	92,840	61,440	n.a.	n.a.	2,286,550
1962–63 .	1,027,216	838,862	195,831	220,067	99,880	64,837	n.a.	n.a.	2,446,694
1963–64 .	1,101,021	912,424	218,762	240,315	108,515	70,582	n.a.	n.a.	2,651,620
1964–65 .	1,229,957	1,028,492	252,358	274,225	119,978	76,515	3,483	8,702	2,993,709
1965–66 .	1,303,680	1,077,234	268,046	282,951	134,171	82,963	3,859	9,866	3,162,769
Average per employee ($)—									
1961–62 .	2,185	2,108	1,928	2,095	1,925	2,115	n.a.	n.a.	2,114
1962–63 .	2,228	2,179	1,953	2,175	1,976	2,185	n.a.	n.a.	2,170
1963–64 .	2,323	2,278	2,064	2,251	2,057	2,290	n.a.	n.a.	2,265
1964–65 .	2,484	2,450	2,262	2,444	2,180	2,427	3,110	2,791	2,435
1965–66 .	2,581	2,525	2,376	2,474	2,351	2,493	3,213	2,936	2,523

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The following table shows, by class of industry, the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. Amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF ETC., AND OTHER EMPLOYEES, BY CLASS OF INDUSTRY, AUSTRALIA, 1965–66

Class of industry	Managers, clerical staff, chemists, draftsmen, etc.		All other employees	
	Males	Females	Males	Females
	$'000	$'000	$'000	$'000
1. Treatment of non-metalliferous mine and quarry products	11,925	2,007	59,361	339
2. Bricks, pottery, glass, etc.	7,810	1,845	59,585	2,709
3. Chemicals, dyes, explosives, paints, oils, grease	40,251	8,825	93,155	11,135
4. Industrial metals, machines, conveyances	269,877	52,958	1,168,720	76,006
5. Precious metals, jewellery, plate	1,836	546	8,771	1,192
6. Textiles and textile goods (not dress)	17,006	6,601	68,742	60,737
7. Skins and leather (not clothing or footwear)	3,190	776	17,234	5,063
8. Clothing (except knitted)	14,912	8,054	49,209	111,967
9. Food, drink and tobacco	51,222	15,623	216,493	49,457
10. Sawmills, joinery, boxes, etc., wood turning and carving	16,943	3,659	112,000	2,236
11. Furniture of wood, bedding, etc.	5,854	2,269	35,385	5,761
12. Paper, stationery, printing, bookbinding, etc.	34,655	10,591	156,974	25,326
13. Rubber	8,669	1,907	38,406	4,957
14. Musical instruments	230	57	1,232	259
15. Miscellaneous products	12,680	4,052	41,089	14,236
Total, classes 1 to 15	*497,059*	*119,770*	*2,126,355*	*371,380*
16. Heat, light and power	6,095	209	41,848	52
Grand total	**503,154**	**119,980**	**2,168,204**	**371,432**
Average paid per employee	$ 3,846	$ 1,721	$ 2,680	$ 1,520

Power, fuel and light used

By class of industry. The expenditure by factories on power, fuel and light, including the value of lubricants and water, is shown in the following table for each State and Territory.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(*a*) BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1965–66

($'000)

Class of industry(*b*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine etc. products	12,280	6,662	2,503	2,448	1,522	981	13	45	26,455
2. Bricks, etc.	9,101	6,079	1,406	1,788	1,417	357	1	187	20,337
3. Chemicals, etc.	21,726	16,919	2,623	4,224	5,249	1,752	47	16	52,557
4. Industrial metals, etc.	111,039	30,644	6,880	17,918	5,043	8,979	53	51	180,606
5. Jewellery, etc.	373	387	44	99	41	5	. .	185	1,132
6. Textiles, etc.	3,738	6,502	216	450	117	606	. .	. .	11,630
7. Skins, leather, etc.	805	892	232	264	154	12	. .	. .	2,358
8. Clothing, etc.	2,157	2,373	410	319	180	81	3	22	5,545
9. Food, drink, etc.	14,439	15,384	8,641	3,216	2,635	1,517	144	50	46,025
10. Sawmills, etc.	3,293	2,095	1,393	858	769	935	10	19	9,373
11. Furniture, etc.	538	357	121	108	67	24	1	2	1,218
12. Paper, stationery, etc.	5,170	6,431	1,097	1,505	316	3,854	8	169	18,551
13. Rubber	2,385	2,932	516	501	158	37	7	14	6,550
14. Musical instruments	67	21	1	1	1	. .	. .	. .	91
15. Miscellaneous	2,105	3,092	69	224	75	12	. .	. .	5,577
Total, classes 1 to 15	*189,215*	*100,771*	*26,154*	*33,923*	*17,744*	*19,151*	*287*	*760*	*388,007*
16. Heat, light and power	34,302	27,087	17,637	10,143	9,570	30	569	. .	99,337
Grand total	**223,517**	**127,858**	**43,791**	**44,066**	**27,314**	**19,181**	**856**	**760**	**487,343**

(*a*) Includes value of lubricants and water. (*b*) For full titles *see* table above.

Total value. The next table shows the total amounts expended on power, fuel and light during the last five years.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(*a*)
STATES AND TERRITORIES, 1961–62 TO 1965–66
($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*b*)
1961–62 .	187,821	99,087	32,132	30,645	20,736	13,139	n.a.	n.a.	383,559
1962–63 .	197,509	103,550	35,198	32,072	21,722	14,436	n.a.	n.a.	404,487
1963–64 .	210,157	114,648	37,462	34,772	23,749	16,364	n.a.	n.a.	437,153
1964–65 .	217,548	125,161	38,749	39,295	26,045	18,327	865	644	466,633
1965–66 .	223,517	127,858	43,791	44,066	27,314	19,181	856	760	487,343

(*a*) Includes value of lubricants and water. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Value of items. The following table shows the value of the various items of power, fuel and light used in factories in each State and Territory.

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(*a*)
STATES AND TERRITORIES, 1965–66
($'000)

Item of power, fuel, etc.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coal, black . .	38,102	3,066	20,309	(*b*)7,647	6,041	596	..	146	75,907
,, brown . .	..	17,173	..	..	..	..	..	..	17,173
Brown coal briquettes	2	11,790	..	..	..	..	..	..	11,791
Coke . . .	42,376	1,163	837	6,691	393	654	..	..	52,114
Wood . . .	763	725	522	582	600	137	2	1	3,332
Fuel oil . . .	25,995	22,903	6,401	10,473	9,732	4,073	607	103	80,288
Tar (fuel) . .	2,517	161	27	101	33	21	..	..	2,861
Electricity . .	67,418	55,136	12,037	13,794	6,861	12,207	200	455	168,109
Gas . . .	22,523	3,912	526	967	223	76	(*c*)	(*c*)	28,227
Other (charcoal, etc.)	10,226	2,694	282	1,276	1,840	689	1	4	17,013
Water . . .	9,600	6,528	1,770	1,694	1,009	501	23	11	21,136
Lubricating oils .	3,996	2,606	1,079	841	581	227	24	39	9,393
Total . .	**223,517**	**127,858**	**43,791**	**44,066**	**27,314**	**19,181**	**856**	**760**	**487,343**

(*a*) Includes value of lubricants and water. (*b*) Includes $5,957,705, the value of 1,926,672 tons of sub-bituminous Leigh Creek coal. (*c*) Less than $500.

Quantities of fuel used. The following table shows the quantities of fuel used in factories in each State and Territory.

FACTORIES: QUANTITIES OF FUEL USED, STATES AND TERRITORIES, 1965–66

Fuel		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coal, black .	'000 tons	7,512	277	2,357	(*a*)2,096	827	59	..	11	13,140
,, brown .	,,	..	16,277	..	..	..	..	..	..	16,277
Brown coal briquettes .	,,	(*b*)	1,027	..	..	..	..	..	..	1,027
Coke . .	,,	2,816	49	24	364	12	18	..	..	3,284
Wood . .	,,	178	189	126	261	190	52	(*b*)	(*b*)	995
Fuel oil .	'000 gal	360,291	312,812	79,983	160,617	133,929	55,687	2,180	695	1,106,193
Tar (fuel) .	,,	183	8	2	8	3	1	..	..	205

(*a*) Includes 1,926,672 tons of Leigh Creek coal. (*b*) Less than 500 tons.

Value of materials used

By class of industry. The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced, and repairs to plant) in factories in Australia in 1965–66 reached $7,597 million, or 54.1 per cent of the value of the final output (*see* page 1130). The following table shows the value of the materials used in various classes of industry in each State and Territory.

FACTORIES: VALUE OF MATERIALS USED, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1965–66

($'000)

Class of industry(*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products .	113,715	59,165	19,970	19,224	11,936	5,489	847	2,479	232,826
2. Bricks, etc. . .	32,635	21,911	4,232	6,495	2,625	534	199	608	69,239
3. Chemicals, etc. .	375,239	272,855	52,813	57,600	83,476	7,982	247	8	850.221
4. Industrial metals, etc.	1,554,861	814,925	265,993	389,830	114,566	72,753	2,363	3,453	3,218,745
5. Jewellery, etc. . .	6,586	5,178	482	833	261	38	..	1,027	14,405
6. Textiles, etc. . .	103,760	221,628	8,944	11,291	5,934	19,287	..	..	370.844
7. Skins, leather, etc. .	32,761	21,434	6,215	10,427	2,098	708	..	..	73,642
8. Clothing, etc. . .	130,882	126,171	12,176	8,924	4,354	1,086	31	194	283,817
9. Food, drink, etc. .	474,094	537,976	454,699	116,228	88,180	55,140	993	1,084	1,728.394
10. Sawmills, etc. . .	104,686	72,681	33,747	28,662	22,743	21,953	369	1,799	286,639
11. Furniture, etc.. .	43,396	30,012	12,938	8,652	6,747	2,025	64	333	104,168
12. Paper, stationery, etc.	176,002	160,910	31,242	22,231	12,400	25,975	84	2,192	431,037
13. Rubber . . .	48,823	48,086	9,144	8,085	3,347	665	113	172	118,436
14. Musical instruments	2,576	505	49	19	12	..	..	..	3,161
15. Miscellaneous . .	52,127	63,221	2,545	6,106	1,994	345	..	..	126,339
Total, classes 1 to 15 .	*3,252,143*	*2,456,658*	*915,189*	*694,607*	*360,673*	*213,980*	*5,312*	*13,349*	*7,911,912*
16. Heat, light and power	15,398	12,714	9,237	4,388	1,962	813	185	..	44,698
Grand total .	3,267,541	2,469,372	924,427	698,996	362,634	214,794	5,497	13,349	7,956,609

(*a*) For full titles *see* table on page 1127.

Total amount. The following table shows the total value of materials used in factories for the last five years.

FACTORIES: VALUE OF MATERIALS USED STATES AND TERRITORIES, 1961–62 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust(*a*)
1961–62 .	2.447,332	1,834.742	610,007	425.121	270,169	142,534	n.a.	n.a.	5,729,905
1962–63 .	2,629.648	2,001,508	713,728	502,860	279,756	156,075	n.a.	n.a.	6,283,575
1963–64 .	2,859.622	2,190,398	812,924	599,658	300,798	172,130	n.a.	n.a.	6,935,530
1964–65 .	3,212,677	2,425.961	824,681	668,946	329,740	195,972	4,550	11.440	7,673,967
1965–66 .	3,267,541	2,469,372	924,427	698,996	362,634	214,794	5,497	13,349	7,956,609

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Value of output

By classes of industry. The value of the output of factories in the various classes in each State and Territory in 1965–66 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done, such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the net value of factory production (*see* page 1130).

FACTORIES: VALUE OF OUTPUT, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1965–66

($'000)

Class of industry(*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products .	190,673	114,331	40,103	39,480	26,185	11,684	1,359	3,837	427,652
2. Bricks, etc. . .	105,578	69,038	15,196	19,398	11,488	2,579	269	1,600	225,147
3. Chemicals, etc. .	687,883	460,136	81,584	97,087	127,638	17,880	655	64	1,472,928
4. Industrial metals, etc.	2,875,293	1,620,395	463,263	702,230	232,532	134,905	5,533	7,968	6,042,120
5. Jewellery, etc. . .	15,602	14,326	1,521	2,739	1,155	187	. .	2,894	38,424
6. Textiles, etc. . .	200,481	386,925	14,813	21,538	9,115	32,354	. .	. .	665,227
7. Skins, leather, etc. .	51,648	36,866	10,777	14,644	4,285	892	. .	. .	119,112
8. Clothing, etc. . .	272,067	268,577	30,897	22,209	11,300	3,299	97	770	609,217
9. Food, drink, etc. .	768,623	811,891	619,137	175,135	132,750	81,075	2,245	2,051	2,592,908
10. Sawmills, etc. . .	188,790	134,771	70,025	52,531	46,757	40,208	676	3,038	536,796
11. Furniture, etc. . .	82,951	56,210	23,534	16,455	12,434	3,714	117	577	195,992
12. Paper, stationery, etc.	376,948	323,571	64,895	49,675	27,537	57,857	295	8,283	909,061
13. Rubber . . .	85,912	87,545	18,308	15,582	5,906	1,302	195	444	215,194
14. Musical instruments	7,694	1,294	121	99	77	. .	. .	. .	9,285
15. Miscellaneous .	114,151	123,031	5,857	13,519	4,559	770	. .	. .	261,887
Total, classes 1 to 15 .	*6,024,296*	*4,508,907*	*1,460,031*	*1,242,321*	*653,719*	*388,705*	*11,441*	*31,528*	*14,320,948*
16. Heat, light and power	160,027	116,009	51,183	28,218	25,032	15,875	2,016	. .	398,360
Grand total .	**6,184,323**	**4,624,915**	**1,511,214**	**1,270,539**	**678,751**	**404,581**	**13,456**	**31,528**	**14719,308**

(*a*) For full titles *see* table on page 1133.

Total value. The following table shows the value of output in each State and Territory during the last five years.

FACTORIES: VALUE OF OUTPUT, STATES AND TERRITORIES, 1961–62 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
1961–62 .	4,566,765	3,374,471	992,734	803,595	486,988	283,547	n.a.	n.a.	10,508,098
1962–63 .	4,902,043	3,706,850	1,129,892	914,074	517,899	312,545	n.a.	n.a.	11,483,303
1963–64 .	5,337,695	4,054,822	1,292,260	1,061,786	555,058	341,065	n.a.	n.a.	12,642,686
1964–65 .	5,951,702	4,500,786	1,341,853	1,206,830	616,422	381,549	12,068	26,145	14,037,355
1965–66 .	6,184,323	4,624,915	1,511,214	1,270,539	678,751	404,581	13,456	31,528	14,719,308

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Value of production

By class of industry. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as 'the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production'.

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the 'value of output'. Because of the difficulty experienced in securing accurate figures for depreciation, however, it was subsequently decided that no deduction should be made on this account. All the deductions mentioned above, with the exception of depreciation, are included in the items 'value of materials used' and 'value of fuel used' as defined above. The net value of production as given in the following tables is obtained, therefore, by deducting only 'value of materials used' and 'value of fuel used' from the 'value of output'. The value of factory production, therefore, approximates 'net value added' in the manufacturing process.

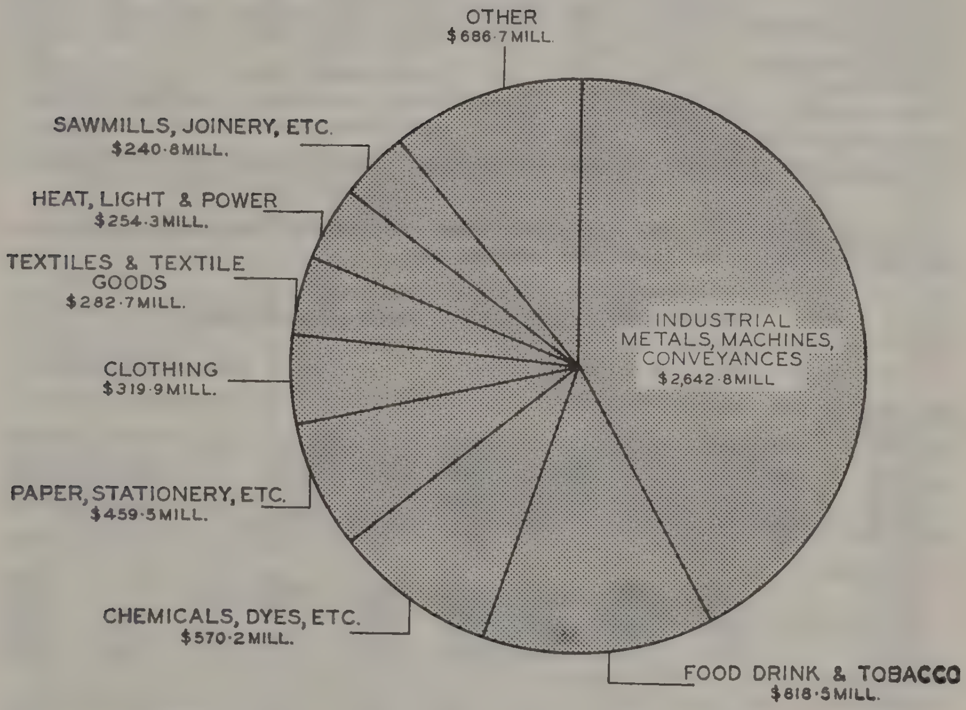
Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that when wages and salaries are deducted from the value of production the whole of the 'surplus' is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising, and other overhead charges, as well as depreciation, also have to be taken into account.

The following table shows the value of production in each State and Territory for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION

BY INDUSTRY

AUSTRALIA, 1965-66



TOTAL: $6,275·4 MILLION

PLATE 56

FACTORIES: VALUE OF PRODUCTION, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1965–66

($'000)

Class of industry(*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products .	64,677	48,503	17,631	17,807	12,727	5,214	499	1,313	168,371
2. Bricks, etc. . .	63,843	41,049	9,557	11,115	7,446	1,688	68	806	135,571
3. Chemicals, etc. .	290,919	170,362	26,148	35,263	38,913	8,146	360	40	570,150
4. Industrial metals, etc.	1,209,393	774,826	190,390	294,482	112,922	53,173	3,118	4,463	2,642,768
5. Jewellery, etc. . .	8,643	8,761	995	1,807	854	145	. .	1,682	22,886
6. Textiles, etc. . .	92,983	158,795	5,653	9,796	3,065	12,461	. .	. .	282,753
7. Skins, leather, etc. .	18,082	14,540	4,330	3,954	2,034	172	. .	. .	43,111
8. Clothing, etc. . .	139,029	140,033	18,311	12,965	6,766	2,133	62	555	319,854
9. Food, drink, etc. .	280,091	258,530	155,797	55,691	41,936	24,418	1,107	918	818,489
10. Sawmills, etc. . .	80,812	59,995	34,885	23,012	23,245	17,319	298	1,219	240,785
11. Furniture, etc. .	39,016	25,841	10,474	7,696	5,620	1,664	52	243	90,606
12. Paper, stationery, etc.	195,776	156,230	32,556	25,939	14,821	28,027	203	5,922	459,473
13. Rubber . . .	34,704	36,526	8,648	6,996	2,401	601	75	257	90,208
14. Musical instruments.	5,051	768	71	79	64	. .	. .	. .	6,032
15. Miscellaneous .	59,919	56,718	3,242	7,189	2,489	413	. .	. .	129,971
Total, classes 1 to 15 .	*2,582,938*	*1,951,477*	*518,688*	*513,791*	*275,302*	*155,574*	*5,842*	*17,418*	*6,021,030*
16. Heat, light and power	110,327	76,208	24,308	13,687	13,501	15,032	1,262	. .	254,325
Grand total .	2,693,265	2,027,685	542,996	527,477	288,803	170,606	7,103	17,418	6,275,355

(*a*) For full titles *see* table on page 1133.

Total and average values. The value of production and the amount per person employed and per head of population are shown in the following table.

FACTORIES: VALUE OF PRODUCTION STATES AND TERRITORIES, 1961–62 TO 1965–66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*a*)
Total value ($'000)—									
1961–62 .	1,931,612	1,440,642	350,595	347,828	196,083	127,874	n.a.	n.a.	4,394,635
1962–63 .	2,074,886	1,601,792	380,966	379,142	216,422	142,033	n.a.	n.a.	4,795,241
1963–64 .	2,267,917	1,749,776	441,873	427,356	230,511	152,571	n.a.	n.a.	5,270,003
1964–65 .	2,521,476	1,949,665	478,423	498,588	260,637	167,251	6,654	14,060	5,896,754
1965–66 .	2,693,265	2,027,685	542,996	527,477	288,803	170,606	7,103	17,418	6,275,355
Average per person employed($)—									
1961–62 .	4,189	3,808	3,449	3,510	3,842	4,253	n.a.	n.a.	3,919
1962–63 .	4,366	4,026	3,628	3,602	4,050	4,618	n.a.	n.a.	4,107
1963–64 .	4,650	4,236	3,992	3,857	4,138	4,793	n.a.	n.a.	4,356
1964–65 .	4,954	4,509	4,116	4,291	4,486	5,134	5,499	4,357	4,647
1965–66 .	5,186	4,617	4,618	4,457	4,791	4,972	5,489	4,984	4,850
Average per head of population ($)—									
1961–62 .	489	487	229	356	263	362	n.a.	n.a.	414
1962–63 .	516	532	245	381	282	397	n.a.	n.a.	444
1963–64 .	557	570	279	419	293	421	n.a.	n.a.	479
1964–65 .	609	622	296	476	324	457	196	167	525
1965–66 .	641	635	330	489	350	462	196	188	548

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Value of land, buildings, plant and machinery

The following table shows the value of land and buildings and of plant and machinery used in each State and Territory in connection with manufacturing industries.

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(*a*) STATES AND TERRITORIES, 1965–66

($'000)

Value of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Land and buildings .	1,658,597	1,176,942	273,559	276,531	151,047	211,923	6,208	21,891	3,776,698
Plant and machinery .	1,672,719	1,209,046	477,459	423,458	197,210	158,672	7,587	10,134	4,156,285
Total .	3,331,316	2,385,989	751,018	699,989	348,257	370,596	13,795	32,025	7,932,983

(*a*) At end of year. Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. Consequently, the totals shown in the table do not represent the actual amount of capital invested in the items specified.

Value of land and buildings

By class of industry. The following tables show the approximate value of land and buildings occupied in connection with manufacturing industries.

FACTORIES: VALUE OF LAND AND BUILDINGS(*a*) BY CLASS OF INDUSTRY, AUSTRALIA(*b*), 1961–62 TO 1965–66

($'000)

Class of industry	1961–62	1962–63	1963–64	1964–65	1965–66
1. Treatment of non-metalliferous mine and quarry products	62,264	66,009	72,616	76,489	82,525
2. Bricks, pottery, glass, etc.	52,200	63,060	68,470	73,402	79,323
3. Chemicals, dyes, explosives, paints, oils, grease	191,750	201,028	219,212	231,170	247,653
4. Industrial metals, machines, conveyances	1,013,520	1,102,874	1,188,289	1,320,522	1,419,339
5. Precious metals, jewellery, plate	9,968	10,788	11,657	16,597	16,584
6. Textiles and textile goods (not dress)	115,582	122,955	130,425	132,770	137,174
7. Skins and leather (not clothing or footwear)	20,000	21,591	23,322	24,495	25,427
8. Clothing (except knitted)	115,927	126,807	135,959	147,996	156,895
9. Food, drink and tobacco	344,715	370,015	392,089	428,224	465,596
10. Sawmills, joinery, boxes, etc., wood turning and carving	82,176	85,632	90,956	100,165	107,406
11. Furniture of wood, bedding, etc.	37,762	41,083	44,142	49,601	52,594
12. Paper, stationery, printing, bookbinding, etc.	170,438	182,791	198,860	227,332	250,587
13. Rubber	33,750	37,408	50,595	52,322	58,796
14. Musical instruments	1,591	1,593	1,550	1,640	1,730
15. Miscellaneous products	52,185	58,214	64,090	69,571	74,873
Total, classes 1 to 15	*2,303,826*	*2,491,848*	*2,692,232*	*2,952,295*	*3,176,504*
16. Heat, light and power	505,814	514,973	512,453	553,565	600,194
Grand total	**2,809,641**	**3,006,820**	**3,204,685**	**3,505,859**	**3,776,698**

(*a*) At end of year. Includes estimated value of rented premises. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF LAND AND BUILDINGS(*a*) BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1965–66

($'000)

Class of industry(*b*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc. products	27,202	29,968	6,351	9,120	7,501	1,724	191	468	82,525
2. Bricks, etc.	41,299	23,192	4,348	5,390	3,266	1,228	41	559	79,323
3. Chemicals, etc.	127,932	81,160	10,176	10,039	14,400	3,559	354	34	247,653
4. Industrial metals, etc.	617,983	470,730	88,861	145,884	57,311	31,192	2,434	4,944	1,419,339
5. Jewellery, etc.	5,607	4,810	527	1,416	663	136	. .	3,424	16,584
6. Textiles, etc.	43,766	80,751	2,476	4,374	1,257	4,549	. .	. .	137,174
7. Skins, leather, etc.	12,271	9,780	1,067	1,332	920	58	. .	. .	25,427
8. Clothing, etc.	67,610	66,737	8,605	7,337	4,078	1,798	89	641	156,895
9. Food, drink, etc.	142,401	159,823	77,317	37,015	27,443	18,877	1,358	1,362	465,596
10. Sawmills, etc.	39,565	34,467	10,320	10,454	5,606	5,812	246	935	107,406
11. Furniture, etc.	21,015	17,375	5,604	4,265	2,768	1,123	17	426	52,594
12. Paper, stationery, etc.	105,145	82,825	15,006	15,889	9,293	13,723	67	8,639	250,587
13. Rubber	23,064	22,443	5,783	4,316	1,753	721	258	457	58,796
14. Musical instruments	1,026	452	69	102	81	. .	. .	. .	1,730
15. Miscellaneous	31,542	36,184	1,738	3,246	1,728	435	. .	. .	74,873
Total, classes 1 to 15	*1,307,429*	*1,120,698*	*238,249*	*260,179*	*138,070*	*84,934*	*5,054*	*21,891*	*3,176,504*
16. Heat, light and power	351,168	56,244	35,310	16,352	12,978	126,989	1,153	. .	600,194
Grand total	**1,658,597**	**1,176,942**	**273,559**	**276,531**	**151,047**	**211,923**	**6,208**	**21,891**	**3,776,698**

(*a*) At end of year. Includes estimated value of rented premises. (*b*) For full titles *see* table above.

Total value. The following table shows the value of land and buildings in each State and Territory.

FACTORIES: VALUE OF LAND AND BUILDINGS(*a*)
STATES AND TERRITORIES, 1961–62 TO 1965–66
($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*b*)
1961–62	1,286,965	889,331	179,264	196,594	98,336	159,148	n.a.	n.a.	2,809,641
1962–63	1,379,533	954,065	193,484	212,963	102,856	163,919	n.a.	n.a.	3,006,820
1963–64	1,454,527	1,020,794	211,520	230,627	118,813	168,403	n.a.	n.a.	3,204,685
1964–65	1,539,169	1,105,712	237,443	256,536	131,739	209,010	5,668	20,583	3,505,859
1965–66	1,658,597	1,176,942	273,559	276,531	151,047	211,923	6,208	21,891	3,776,698

(*a*) At end of year. Includes estimated value of rented premises. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Value of plant and machinery

By class of industry. The following two tables show, by class of industry, the approximate value of plant and machinery used in factories.

FACTORIES: VALUE OF PLANT AND MACHINERY(*a*)
BY CLASS OF INDUSTRY, AUSTRALIA(*b*), 1961–62 TO 1965–66
($'000)

Class of industry	1961–62	1962–63	1963–64	1964–65	1965–66
1. Treatment of non-metalliferous mine and quarry products	148,862	153,657	155,387	171,063	197,365
2. Bricks, pottery, glass, etc.	47,888	63,409	70,476	76,841	84,789
3. Chemicals, dyes, explosives, paints, oils, grease	398,422	424,982	459,429	455,567	521,872
4. Industrial metals, machines, conveyances	1,005,967	1,100,595	1,187,576	1,311,045	1,418,984
5. Precious metals, jewellery, plate	2,896	3,018	3,454	7,060	7,197
6. Textiles and textile goods (not dress)	96,630	104,031	106,160	113,469	121,398
7. Skins and leather (not clothing or footwear)	9,033	9,215	9,472	10,206	10,215
8. Clothing (except knitted)	38,335	43,006	46,489	51,361	53,749
9. Food, drink and tobacco	337,239	362,541	383,922	438,152	499,512
10. Sawmills, joinery, boxes, etc., wood turning and carving	68,394	68,924	71,548	75,441	78,321
11. Furniture of wood, bedding, etc.	9,546	9,964	11,137	12,020	12,902
12. Paper, stationery, printing, bookbinding, etc.	183,725	199,086	209,705	231,722	256,681
13. Rubber	26,149	28,556	36,532	41,208	54,194
14. Musical instruments	698	643	603	581	658
15. Miscellaneous products	35,532	42,278	46,137	54,444	59,571
Total, classes 1 to 15	*2,409,316*	*2,613,905*	*2,798,027*	*3,050,180*	*3,377,406*
16. Heat, light and power	642,764	672,628	682,646	716,072	778,879
Grand total	**3,052,079**	**3,286,533**	**3,480,673**	**3,766,253**	**4,156,285**

(*a*) At end of year. Includes estimated value of rented plant and machinery. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF PLANT AND MACHINERY(*a*) BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1965–66

($'000)

Class of industry(*b*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc., products .	93,976	57,540	14,088	17,783	8,794	3,952	189	1,042	197,365
2. Bricks, etc. . .	41,951	23,173	5,644	8,539	3,339	794	43	1,307	84,789
3. Chemicals, etc. .	230,105	149,872	55,667	35,542	42.227	7,710	719	30	521,872
4. Industrial metals, etc.	706,911	344,807	67,206	207,816	49,814	40,714	999	717	1,418,984
5. Jewellery, etc. . .	1,675	1,448	201	415	166	32	..	3,260	7,197
6. Textiles, etc. . .	39,706	65,544	2,182	4,606	1,141	8,218	..	..	121,398
7. Skins, leather, etc. .	4,038	3,584	972	1,121	461	38	..	..	10,215
8. Clothing, etc. . .	20,848	23,186	3,751	3,629	1,486	633	18	198	53,749
9. Food, drink, etc. .	119.730	135.500	177,501	28,245	20,667	16,621	714	536	499,512
10. Sawmills, etc. . .	24,830	19,230	11,328	9,298	5,562	7,651	208	215	78,321
11. Furniture, etc.. .	5,443	3,335	1,794	1.284	729	250	11	55	12,902
12. Paper, stationery, etc.	94.928	74,818	20,204	25,667	13,172	25,226	73	2,594	256,681
13. Rubber . .	24,172	18,498	2,413	6,683	1,840	300	105	182	54,194
14. Musical instruments	457	144	12	38	7	..	..	..	658
15. Miscellaneous. .	22,054	32,566	1,528	2,114	977	332	..	..	59,571
Total, classes 1 to 15 .	*1,430,824*	*953,246*	*364,490*	*352,779*	*150,383*	*112,472*	*3,078*	*10,134*	*3,377,406*
16. Heat, light and power	241,895	255,800	112,968	70,679	46,827	46,201	4,508	..	778,879
Grand total . .	**1,672,719**	**1,209,046**	**477,459**	**423,458**	**197,210**	**158,672**	**7,587**	**10,134**	**4,156,285**

(*a*) At end of year. Includes estimated value of rented plant and machinery. (*b*) For full titles, *see* table on page 1134.

Total value. The following table shows the value of plant and machinery in each State and Territory.

FACTORIES: VALUE OF PLANT AND MACHINERY(*a*) STATES AND TERRITORIES, 1961–62 TO 1965–66

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(*b*)
1961–62 . .	1,341,272	938,278	274,502	253,006	123,432	121,590	n.a.	n.a.	3,052,079
1962–63 . .	1,438,382	1,003,390	280,585	293,608	132,635	137,933	n.a.	n.a.	3,286.533
1963–64 . .	1,504,195	1.040.724	308,307	330,281	155,514	141.651	n.a.	n.a.	3,480.673
1964–65 . .	1,564,408	1,127,948	350,318	388,932	163,526	155,336	6,103	9,682	3,766,253
1965–66 . .	1,672,719	1,209.046	477,459	423,458	197,210	158,672	7,587	10,134	4,156.285

(*a*) At end of year. Includes estimated value of rented plant and machinery. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Depreciation of land and buildings and plant and machinery

The following table shows, by class of industry, the allowance made for the depreciation of land and buildings and plant and machinery used in connection with the manufacturing industries in each State and Territory as recorded by factory proprietors at the annual census of factory production.

FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1965-66

($'000)

Class of industry(*a*)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1. Treatment non-metal. mine, etc., products	10,643	4,931	1,441	2,145	891	169	24	40	20,284
2. Bricks, etc.	4,130	3,207	599	796	443	162	13	106	9,456
3. Chemicals, etc.	30,756	22,597	3,008	3,792	5,696	1,263	39	4	67,158
4. Industrial metals, etc.	78,173	43,966	6,799	24,216	4,248	3,240	97	58	160,799
5. Jewellery, etc.	185	137	19	39	14	2	..	190	586
6. Textiles, etc.	4,891	9,704	302	627	121	865	..	..	16,510
7. Skins, leather, etc.	399	392	107	168	73	4	..	..	1,142
8. Clothing, etc.	1,996	2,010	305	250	158	64	3	28	4,813
9. Food, drink, etc.	14,851	16,668	13,907	3,359	2,743	1,961	88	81	53,658
10. Sawmills etc.	2,940	1,983	1,610	1,192	716	1,023	19	29	9,511
11. Furniture, etc.	613	333	196	143	73	19	2	4	1,382
12. Paper, stationery, etc.	10,950	10,608	2,410	1,908	920	3,560	8	325	30,688
13. Rubber	3,333	3,032	421	743	353	62	9	12	7,966
14. Musical instruments	74	10	1	1	(*b*)	..	..	..	87
15. Miscellaneous	3,169	5,125	155	297	128	16	..	..	8,892
Total, classes 1 to 15	*167,102*	*124,703*	*31,280*	*39,676*	*16,578*	*12,411*	*302*	*877*	*392,930*
16. Heat, light and power	23,265	24,929	7,318	3,941	3,440	2,137	250	..	65,280
Grand total	**190,367**	**149,632**	**38,597**	**43,618**	**20,018**	**14,549**	**552**	**877**	**458,210**

(*a*) For full titles *see* table on page 1134. (*b*) Less than $500.

Land and buildings, plant and machinery—values, additions and replacements, depreciation

The following table summarises the recorded totals for Australia and also includes particulars of additions and replacements.

FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY AUSTRALIA(*a*), 1961-62 TO 1965-66

($'000)

Year	Book values at 30 June(*b*)		Additions and replacements during year(*b*)		Depreciation allowed during year	
	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery
1961–62	2,809,641	3,052,079	359,729	561,185	36,891	279,860
1962–63	3,006,820	3,286,533	191,797	566,066	38,797	304,154
1963–64	3,204,685	3,480,673	192,419	564,958	39,711	336,929
1964–65	3,505,859	3,766,253	249,779	666,490	46,095	366,702
1965–66	3,776,698	4,156,285	272,052	773,271	51,813	406,397

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Includes estimated value of rented premises, plant and machinery.

Principal factory products

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau, in the series *Manufacturing Industries*, and in the bulletin *Manufacturing Commodities*, formerly *Secondary Industries, Part II.—Materials Used and Articles Produced in Factories.*

The following table shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list, together with values, where available, is published in the aforementioned bulletin and in the mimeographed statement *Principal Factory Products*. Because of revisions figures for some items in the following table may differ from corresponding figures in earlier chapters.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA, 1962–63 TO 1965–66

Article		1962–63	1963–64	1964–65	1965–66
Acid (in terms of 100%)—					
Hydrochloric	tons	4,295	4,304	4,491	5,447
Nitric	,,	19,836	19,782	24,817	25,522
Sulphuric	'000 tons	1,256	1,447	1,610	1,779
Aerated and carbonated waters	'000 gal	87,365	93,304	99,062	105,381
Air conditioning equipment—					
Room air conditioners (refrigerated)	no	5,918	4,511	6,027	18,217
Room air coolers (evaporative coolers)	,,	3,620	1,896	2,886	6,000
Package unit air conditioners	,,	1,835	1,830	2,304	2,047
Asbestos cement building sheets (finished)	'000 sq yd	27,743	29,836	32,477	32.364
Bags, leather, fibre, etc.—					
Handbags—					
Leather	no	534,486	509,569	529,133	534,121
Plastic	'000	2,109	2,065	2,392	2,053
Other	no	250,858	278,359	410,190	393,037
Hessian and calico bags	'000 doz	2,846	3,000	3,095	3,601
Suitcases, kitbags and trunks	'000	1,411	1,567	1,613	1,657
All other(*a*)	,,	2,131	2,037	2,080	1,985
Bath heaters—					
Electric	no	11,783	14,498	14,087	13,524
Gas	,,	14,143	11,943	11,348	9,971
Solid fuel	,,	19,967	17,606	16,120	13,963
Bathing suits	doz	209,753	205,945	241,203	270,698
Baths—					
C.I.P.E.	no	76,034	77,868	84,852	85,447
Other	,,	36,465	53,292	67,523	67,048
Batteries, wet cell type—					
Auto (S.L.I.) 6 volts	'000	600	579	503	470
12 volts	,,	1,116	1,192	1,257	1,312
Radio, homelighter, fencer	no. of 2 Volt cells	192,146	190,608	158,381	136,173
Traction, plant and other	,,	58,980	56,359	63,717	78,066
Beer (excluding waste beer)	'000 gal	249,454	262,343	274,895	279,503
Biscuits	'000 lb	185,245	197,970	208,945	223,678
Blankets	'000	1,845	2,176	2,079	1,701
Boots and shoes (*see* Footwear)					
Bran (wheaten)	tons (2,000 lb)	225,185	252,746	228,746	206,127
Brandy	'000 proof gal	1,129	1,220	1,400	1,371
Brassieres	doz	609,575	681,846	673,551	719,739
Bread (2 lb loaf equivalent)	'000	762,673	779,458	781,317	794,537
Breakfast food, cereal (ready to eat)	cwt	812,725	833,726	878,533	904,040
Bricks, clay	mill.	1,059	1,238	1,353	1,385
Briquettes, brown coal	'000 tons	1,805	1,883	1,893	1,883
Butter(*b*)	'000 lb	450,765	454,292	454,878	460,433
Cardigans, sweaters, etc.	'000 doz	1,261	1,327	1,418	1,432
Cement, portland	'000 tons	2,942	3,320	3,746	3,667
Cheese (green weight)	'000 lb	131,120	130,405	138,008	131,300
Cigarettes and cigars	,,	45,346	46,040	49,544	47,543
Cloth (including mixtures)—					
Cotton(*c*)	'000 sq yd	47,103	53,354	56,671	55,701
Rayon and acetate	,,	23,603	26,798	32,017	32,985
Synthetic (non-cellulosic)	,,	18,319	19,916	22,491	21,015
Wool	,,	37,163	34,876	35,299	32,588
Coke—					
Metallurgical	'000 tons	2,759	2,915	3,118	3,142
Other	tons	694,575	693,361	632,501	599,301
Concrete, ready mixed	'000 cu yd	4,425	5,410	6,060	6,603
Confectionery—					
Chocolate	'000 lb	83,815	92.714	95,634	104,312
Other	,,	97,708	100,482	106,274	107,856

(*a*) Excludes canvas water bags. (*b*) Includes the butter equivalent of butter oil production. (*c*) Excludes towelling and tyre-cord fabric.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA, 1962–63 TO 1965–66—*continued*

Article		1962–63	1963–64	1964–65	1965–66
Copper, refined(*a*)	tons	85,652	89,222	53,441	91,001
Coppers (wash boilers)—					
Electric	no	10,385	10,412	11,051	9,113
Gas	,,	10,959	8,255	7,503	5,740
Inserts	,,	15,356	19,540	18,213	19,074
Cordials and syrups	'000 gal	6,259	6,887	7,295	9,144
Corsets and corselets	doz	274,353	303,538	342,336	380,835
Cycles, (complete)	no	59,168	62,326	67,874	63,641
Dentifrices (toothpaste)	'000 lb	8,443	8,800	9,799	9,774
Dynamos (non-automotive)—					
Alternators	no	1,022	1,011	1,480	1,676
Generators	,,	3,396	1,339	1,139	1,022
Electricity	mill. kWh	29,279	32,519	35,671	38,279
Electrodes for manual welding	'000 lb	36,058	44,147	47,654	43,405
Engines, internal combustion(*b*)	'000	271	290	292	224
Essences, flavouring—					
Domestic	gal	114,239	127,915	130,532	135,720
Industrial	,,	530,649	585,015	587,753	594,026
Face powder	lb	247,916	282,122	310,586	285,870
Fans, electric	no	146,193	156,836	204,285	223,409
Fish, canned (including fish loaf)	'000 lb	10,327	11,149	10,914	11,853
Floorboards—					
Australian timber	'000 super ft	139,284	146,148	160,165	162,710
Imported timber	,,	776	665	798	721
Floor coverings—					
Soft	'000 sq yd	8,801	10,297	11,542	11,692
Smooth surface	,,	7,222	8,192	11,869	14,041
Underfelts, underlays etc.	,,	8,799	9,662	11,158	11,067
Floor polishers, electric	no	101,983	92,108	105,077	80.398
Flour—					
Self-raising	'000 cwt	998	967	902	864
Wheaten(*c*)	'000 tons (2,000 lb)	1,465	1,672	1,553	1,414
Footwear (not rubber)—					
Boots, shoes and sandals	'000 pairs	26,687	28,241	28,607	27,963
Slippers	,,	10,671	11,388	12,211	11,594
Fruit juices, natural—					
Single strength	'000 gal	7,305	8,088	10,106	10,727
Concentrated(*d*)	,,	405	644	753	815
Gas (town)	mill. cubic ft	51,351	53,209	55,260	55,742
Gloves—					
Dress	doz pairs	27,580	28,058	28,299	26,163
Work—Sewn(*e*)	'000 doz pairs	337	379	407	382
Dipped	,,	760	1,100	1,195	1,309
Glucose	'000 lb	41,977	48,638	57,444	60,779
Golf clubs	doz	29,598	29,800	28,635	33,145
Handkerchiefs—					
Men's	'000 doz	1,738	1,717	2,089	1,901
Women's	,,	1,355	1,539	1,603	1,507
Heaters, room—					
Solid fuel	no	38,360	38,557	47,883	37,967
Radiators and electric fires	,,	504,349	579,446	749,889	706,943
Gas fires and space heaters, domestic	,,	19,566	26,253	30,858	31,186

(*a*) Primary origin only. (*b*) Petrol and diesel. Excludes car, motor cycle, truck, tractor, aero, and marine engines. (*c*) Includes wheatmeal for baking and sharps. (*d*) Excludes grape must. (*e*) Excludes fabric liners for dipped gloves but includes moulded or heat sealed work gloves.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA, 1962–63 TO 1965–66—*continued*

Article		1962–63	1963–64	1964–65	1965–66
Ice	tons	238,924	221,182	205,545	198,701
Ice cream	'000 gal	20,661	22,403	25,019	30,026
Infants' and invalids' milk-based health beverages(*a*)	000 lb	38,465	44,105	45,179	45,280
Ink, printing—News	,,	12,397	14,673	14,948	14,900
Other	,,	12,737	13,838	14,545	14,972
Iron and steel—					
Pig iron	'000 tons	3,400	3,772	3,936	4,380
Steel ingots, open hearth and electric	,,	4,260	4,764	5,027	5,561
Blooms and slabs	,,	3,672	4,068	4,503	4,580
Irons, electric (hand, domestic)	no	354,636	363,617	430,326	450,230
Jams (including conserves, jellies, etc.)	'000 lb	92,175	90,462	89,362	97,149
Lard	'000 lb	5,154	6,526	5,536	5,853
Lawn mowers—					
Petrol, rotary	no	217,172	199,204	201,125	176,396
Other types(*b*)	,,	15,158	16,486	10,799	11,403
Lead refined(*c*)	tons	208,946	217,292	199,032	188,101
Leather—					
Dressed or finished—Chrome tanned (including retanned)	'000 sq ft	80,318	87,474	85,900	83,175
Vegetable tanned, by weight	'000 lb	20,943	21,010	19,865	15,326
Vegetable tanned, by measurement	'000 sq ft	4,405	5,423	4,036	3,956
Tanned or dressed skins with hair or wool retained	doz	46,194	55,973	88,592	117,778
Lime—Crushed	tons	161,372	180,694	200,040	219,131
Hydrated	,,	76,401	81,508	89,840	96,566
Quick	,,	98,545	110,429	133,957	135,311
Lipstick	lb	86,318	84,512	65,458	70,104
Malt, (excluding extract)	'000 bus	10,536	12,127	12,262	13,380
Margarine—					
Table	'000 lb	n.a.	n.a.	50,937	53,698
Other	,,	67,613	73,025	69,060	67,884
Mattresses—Box spring	no	37,825	46,580	64,699	80,319
Inner spring	,,	644,510	689,114	727,248	705,702
Woven wire, link mesh and spring	,,	403,866	432,768	504,377	529,019
Other	,,	263,625	279,924	294,074	273,040
Meat, canned(*d*)	'000 lb	95,279	99,902	115,578	113,051
Meters—					
Electric (domestic)	no	235,753	254,884	302,532	(*e*)302,511
Gas	,,	48,198	53,551	50,010	41,443
Water	,,	131,882	127,689	127,316	141,042
Milk, condensed, concentrated and evaporated—					
Full cream, sweetened	'000 lb	75,533	95,744	102,479	73,985
,, ,, unsweetened	,,	64,409	71,964	89,390	88,482
Skim	,,	19,203	25,712	21,936	21,350
Milk powder—					
Full cream	,,	39,703	42,178	43,669	45,060
Skim	,,	94,176	92,130	107,822	112,342
Buttermilk or mixed skim and buttermilk	,,	20,801	21,710	20,885	26,266
Motors, electric	'000	1,936	2,223	2,585	2,510
Motor vehicles—finished—					
Cars	,,	n.a.	240,429	250,477	236,597
Station wagons	,,	n.a.	80,900	83,992	58,889
Utilities	,,	n.a.	28,663	25,661	33,553
Panel vans	,,	n.a.	11,890	12,972	14,574
Truck and truck-type vehicles	,,	n.a.	1,273	1,220	1,074
Motor vehicles—partly finished—					
Cars, station wagons, utilities, vans	,,	n.a.	1,935	1,825	1,600
Trucks and truck-type vehicles	,,	n.a.	23,633	27,029	21,073
Motor vehicle safety belts	,,	n.a.	329,780	437,189	426,847

(*a*) Includes malted milk and milk sugar (lactose). (*b*) Petrol cylinder, electric and hand. (*c*) Includes lead content of lead alloy from primary sources, but excludes lead-silver bullion produced for export. (*d*) Excludes poultry and baby food. (*e*) New basis—electricity consumption meters.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA, 1962–63 TO 1965–66—*continued*

Article		1962–63	1963–64	1964–65	1965–66
Nails	tons	23,447	24,987	26,802	23,414
Neckties	doz	524,622	467,557	494,107	496,989
Oatmeal and rolled oats—					
Kilned, for porridge	cwt	296,457	294,515	312,143	310,028
Unkilned	„	550,825	525,930	544,018	401,360
Oils, vegetable—crude	’000 lb	66,872	79,402	87,676	87,898
Paints, etc.—					
Paints, (not water) and enamels ready for use	’000 gal	13,833	15,491	16,260	15,188
in paste form	’000 lb	3,088	3,191	2,926	3,158
Lacquers (nitro-cellulose)	’000 gal	1,443	1,525	1,563	1,437
Tinting colours, packaged ready for sale	„	66	65	57	54
Stains and clear varnished packaged ready for sale	„	827	888	899	845
Water paints—emulsion type	„	3,077	3,348	3,710	4,321
in powder form	’000 lb	2,228	2,423	2,269	1,945
Thinners	’000 gal	3,574	3,908	4,163	4,018
Paper—					
Newsprint	tons	90,245	92,039	93,142	93,211
Other	„	255,751	295,651	341,642	351,303
Paperboard	„	240,965	258,374	296,387	317,553
Perambulators, pushers and strollers	no	140,449	147,338	135,621	132,499
Petrol—					
For blending and refining	’000 gal	75,086	44,649	51,890	44,870
Other (all types)	million „	1,283	1,365	1,495	1,609
Plaster of paris	tons	240,863	260,092	277,445	265,553
Plaster sheets(*a*)	’000 sq yd	15,932	15,922	29,613	30,984
Plywood, ⅛ inch basis	’000 sq ft	195,263	216,282	217,059	187,258
Pollard	tons (2,000 lb)	305,923	349,095	326,418	303,162
Preserves—					
Fruit—Canned or bottled	’000 lb	431,739	471,289	513,714	579,619
Pulp and puree—single strength	’000 cwt	103	83	86	62
Vegetables—Canned or bottled	’000 lb	132,628	144,070	152,117	180,098
Quick frozen	„	47,834	57,414	77,254	98,885
Pyjamas—					
Men’s and boys’ (suits only)	doz	406,946	422,731	430,589	480,396
Women’s and girls’ (incl. nightdresses)	„	635,232	675,940	711,139	726,711
Racquet frames (all types)	doz	15,034	14,466	16,190	15,308
Radio receiving sets (including radiograms)	no	500,861	465,520	455,970	392,526
Records (phonograph)—					
Single play (78 and 45 r.p.m.)	’000	3,629	3,885	4,198	4,298
Extended play	„	898	1,121	1,474	1 486
Long play	„	3,660	4,078	4,459	5,086
Refrigerators, domestic	no	206,349	203,391	227,728	213.870
Resins, plastic and synthetic—for all purposes	’000 cwt	1,703	1,974	2,123	2,433
Rice, polished, unpolished and broken	„	1,693	1,596	1,969	2 080
Ropes and cables (excluding wire)	cwt	143,490	147,038	137,471	133,355
Rugs	’000	194	193	201	175
Sauce	’000 pints	33,170	37,385	38,271	46 111
Semolina	tons (2,000 lb)	10,065	13,213	16,532	18,744
Shirts (men’s and boys’)	’000 doz	1,920	1,965	2,146	2,266
Sink heaters, electric	no	11,619	11,320	12,155	10,646
Sinks, pressed steel	„	174,180	193,454	219,371	220,037
Soap—for personal toilet use	’000 cwt	419	428	465	478
Socks and stockings—					
Men’s and youths’	’000 doz. pairs	1,643	1,628	1,707	1,690
Women’s and maids’	„	3,633	3,992	4,440	4,563
Children’s and infants’	„	899	937	1,025	903
Soup—Canned	’000 pints	48,063	55,124	63,077	72 032
Dry-mix	’000 lb	7,622	6,805	7,291	8 294
Starch	000 lb	92,029	102,132	132,271	145 536
Stearine (stearic acid)	„	10,050	9,877	11,538	9,647
Steel, constructional, fabricated	tons	416,067	453,266	506,291	543,705
Stoves, ovens and ranges—					
Domestic cooking—					
Electric(*a*)	no	141,231	168,854	182,770	227,597
Gas(*b*)	„	65,573	77,380	84,503	71,265
Solid fuel	„	27,137	28,076	23,612	20,859

(*a*) Figures prior to 1964–65 refer only to the production of fibrous plaster sheets.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA, 1962–63 TO 1965–66—*continued*

Article		1962–63	1963–64	1964–65	1965–66
Sugar—Raw (94 net titre)	'000 tons	1,850	1,724	1,950	1,953
Refined	'000 tons	564	576	592	609
Sulphate of ammonia	tons	93,475	85,488	108,275	122 358
Superphosphate(*c*)	'000 tons	2,862	3,347	3,703	4,185
Talcum powder	'000 lb	6,497	7,382	7,835	6,860
Tallow (including dripping)—rendering—					
Edible	,,	165,782	172,873	161,967	148,628
Inedible	,,	369,710	357,507	391,152	343,906
Television sets	no	295,692	270,235	308,737	276,588
Television picture tubes	,,	385,786	356,990	400,675	361,534
Tiles, roofing—					
Cement	'000	60,482	76,543	87,744	82,921
Terracotta	,,	51,298	53,785	52,984	51,258
Timber—					
From native logs—					
Hardwood	'000 super ft	1,088,197	1,157,175	1,203,705	1,185,831
Softwood	,, ,,	322,370	330,014	329,508	331,469
From imported logs	,, ,,	31,949	32,967	36,346	27,892
Toasters, electric (domestic)	no	289,063	305,248	321,042	329,626
Tobacco	'000 lb	11,553	10,046	8,993	8,407
Tomato juice	'000 gal	2,353	1,131	987	1,927
paste and puree	'000 pints	7,709	13,451	16,446	18,636
pulp	'000 cwt	450	522	168	133
Towels	'000 doz	730	826	895	960
Toilet cisterns	no	n.a.	n.a.	359,944	340,895
Tractors	,,	11,015	15,820	13,489	10,467
Transformers, chokes and ballasts— for distribution of power and light, etc.	,,	18,788	21,592	22,308	19,361
Tubes, pneumatic(*d*)	,,	3,144	3,409	3,651	3,823
Twine (all types)	cwt	170,972	184,356	195,461	174,646
Tyres, pneumatic(*d*)	'000	5,013	5,097	5,530	5,613
Umbrellas—street and general purpose	no	635,553	771,597	764,510	716,987
Underwear (men's, women's, children's)	'000 doz	5,858	6,017	6,231	6,305
Vacuum cleaners (domestic)	no	127,348	140,708	181,326	181,691
Wash basins—					
C.I.P.E.	no	77,717	72,744	71,430	64 126
Earthenware	,,	97,404	113,905	149,257	140,652
Pressed steel	,,	37,333	45,289	56,126	62,852
Washing machines, household, electric	,,	215,844	222,070	264,001	240,189
Weatherboards—					
Australian timber	'000 super ft	20,123	20,755	20,599	20,307
Imported timber	,, ,,	3,093	2,740	3,094	2,583
Wheatmeal for stock feed	tons (2,000 lb)	94,790	118,347	207,696	284 474
Wheelbarrows (metal)	no	87,642	104,464	111,366	116,838
Wine, beverage—					
Fortified	'000 gal	8,761	10,825	11,137	9,678
Unfortified	,,	6,091	7,874	8,697	8,663
Wood pulp	tons	258,844	286,008	317,435	330,625
Wool, scoured or carbonised	'000 lb	171,808	160,906	158,832	156,091
Wool tops, pure	,,	47,957	51,140	46,588	46,344
Yarn (including mixtures)—					
Cotton	'000 lb	46,685	55,387	59,092	59,021
Woollen	,,	27,016	28,380	30,647	30,534
Wool worsted	,,	26,181	23,826	23,532	21,519
Rayon and acetate—spun	,,	3,685	4,583	6,218	5,970
Synthetic (non-cellulosic) fibres—spun	,,	3,390	5,083	6,387	6,720
Zinc, refined(*e*)	tons	175,850	186,389	189,395	196,534

(*a*) Includes wall ovens but excludes cooking tops. (*b*) Upright and elevated (with oven) including wall ovens, but excluding hotplates, stovettes, etc. (*c*) Source: Department of Primary Industry. As from June 1964 includes double and triple superphosphate and ammonium phosphate expressed in terms of single phosphate, i.e. 22% P_2O_5 equivalent. (*d*) Excludes bicycle and 'other'. (*e*) Primary origin only—includes small quantities of zinc dust.

Individual industries

Particulars on pages 1109–36 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible within the limits of this publication to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour or capital, or for other features of special interest. Details for individual States are available from publications issued by the Deputy Commonwealth Statistician in each State and, for selected industries, in the Central Office series *Manufacturing Industries*.

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS: AUSTRALIA, 1965–66

		Portland cement	Asbestos cement sheets and mouldings	Other cement goods	Total
Number of factories		17	15	729	761
Number of persons employed		3,464	3,046	8,817	15,327
Salaries and wages paid	$'000	10,408	8,707	25,426	44,541
Value of power, fuel, etc., used	$'000	12,342	1,200	1,614	15,156
Value of materials used	$'000	21,897	14,815	93,109	129,821
Value of production	$'000	33,446	18,671	54,343	106,460
Total value of output	$'000	67,685	34,686	149,066	251,437
Value of land and buildings	$'000	15,662	8,838	21,149	45,648
Value of plant and machinery	$'000	71,158	8,443	23,611	103,212
Horse-power of engines ordinarily in use	hp	148,149	25,686	44,552	218,387

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		600	640	669	702	761
Number of persons employed		12,965	13,601	14,230	15,070	15,327
Salaries and wages paid	$'000	30,901	33,200	37,050	42,339	44 541
Value of power, fuel, etc., used	$'000	12,105	12,864	13,689	15,631	15,156
Value of materials used	$'000	80,987	89,399	103,035	120,439	129,821
Value of production	$'000	71,060	79,274	91,570	103,887	106,460
Total value of output	$'000	164,151	181,537	208,294	239,957	251,437
Value of land and buildings	$'000	31,544	34,019	37,465	40,555	45,648
Value of plant and machinery	$'000	70,246	74,229	76,667	87,093	103,212
Horse-power of engines ordinarily in use	hp	156,025	162,239	170,763	206,585	218,387

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

BRICKS, TILES, POTTERY AND EARTHENWARE: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		427	419	412	406	393
Number of persons employed		14,305	14,496	15,132	15,467	15,636
Salaries and wages paid	$'000	31,999	33,076	36,416	40,544	41,317
Value of power, fuel, etc., used	$'000	10,730	11,625	13,240	14,092	14,152
Value of materials used	$'000	16,849	17,796	21,931	26,089	27,111
Value of production	$'000	52,165	54,977	65,622	77,607	77,217
Total value of output	$'000	79,745	84,399	100,792	117,788	118,481
Value of land and buildings	$'000	26,301	31,474	35,675	38,738	41,375
Value of plant and machinery	$'000	33,549	41,964	49,165	55,320	59,146
Horse-power of engines ordinarily in use	hp	108,491	118,673	127,124	137,727	147,103

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

GLASS AND GLASS BOTTLES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		248	255	263	268	271
Number of persons employed		9,651	10,510	10,382	11,391	11,402
Salaries and wages paid	$'000	21,375	23,171	24,231	28,695	30,220
Value of power, fuel, etc., used	$'000	5,394	5,575	6,485	6,425	6,155
Value of materials used	$'000	32,536	35,922	37,259	42,779	41,717
Value of production	$'000	40,424	44,479	47,454	53,704	57,636
Total value of output	$'000	78,353	85,976	91,197	102,908	105,508
Value of land and buildings	$'000	25,652	31,346	32,567	34,480	37,761
Value of plant and machinery	$'000	14,273	21,388	21,256	21,472	25,604
Horse-power of engines ordinarily in use	hp	35,969	40,627	41,527	41,849	46,320

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES) AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		308	320	325	323	326
Number of persons employed		13,746	14,165	15,075	16,511	16,668
Salaries and wages paid	$'000	35,448	37,567	42,158	49,876	52,179
Value of power, fuel, etc., used	$'000	12,029	13,304	15,627	18,249	17,847
Value of materials used	$'000	101,172	117,449	133,472	157,975	166,441
Value of production	$'000	93,255	111,600	125,599	146,062	150,135
Total value of output	$'000	206,456	242,353	274,698	322,286	334,423
Value of land and buildings	$'000	68,118	68,673	75,208	78,090	84,332
Value of plant and machinery	$'000	141,152	136,126	151,235	160,853	174,484
Horse-power of engines ordinarily in use	hp	165,055	174,380	205,235	225,599	257,132

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

In order to avoid the publication of confidential information, particulars relating to industrial and heavy chemicals include details for the explosives industry.

PHARMACEUTICAL AND TOILET PREPARATIONS: AUSTRALIA(*a*) 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		211	209	213	230	236
Number of persons employed		7,910	8,058	8,173	8,818	9,342
Salaries and wages paid	$'000	15,728	16,940	16,904	19,492	21,667
Value of power, fuel, etc., used	$'000	1,595	1,850	1,070	1,228	1,411
Value of materials used	$'000	51,171	55,176	56,454	64,061	68,577
Value of production	$'000	66,258	63,996	73,418	84,588	115,690
Total value of output	$'000	119,024	121,022	130,943	149,877	185,679
Value of land and buildings	$'000	29,088	34,175	37,474	39,739	43,294
Value of plant and machinery	$'000	11,465	12,639	13,440	14,283	16,806
Horse-power of engines ordinarily in use	hp	20,322	22,772	21,808	24,873	27,396

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The bulk of the output of the above industry comes from New South Wales and Victoria.

WHITE LEAD, PAINTS AND VARNISH: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		188	184	184	196	197
Number of persons employed		5,096	5,144	5,356	5,605	5,665
Salaries and wages paid	$'000	11,338	11,659	12,845	14,297	15,153
Value of power, fuel, etc., used	$'000	809	873	876	959	969
Value of materials used	$'000	53,525	57,463	62,494	66,495	64,914
Value of production	$'000	30,934	34 634	36,674	40,196	40,605
Total value of output	$'000	85,267	92,971	100,044	107,650	106,487
Value of land and buildings	$'000	15,491	16,800	17,888	19,495	19,550
Value of plant and machinery	$'000	10,880	10,785	10,438	10,957	10,668
Horse-power of engines ordinarily in use	hp	28,780	29,162	32,695	33,816	35,483

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

MINERAL OILS, EXTRACTION AND REFINING: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		77	79	82	85	87
Number of persons employed		5,028	5,044	5,159	5,408	5,775
Salaries and wages paid	$'000	14,713	15,490	17,066	18,610	21,171
Value of power, fuel, etc., used	$'000	15,979	17,590	20,906	23,319	24,977
Value of materials used	$'000	272,714	287,008	297,591	314,040	325,230
Value of production	$'000	72,677	95,572	97,628	107,285	132,262
Total value of output	$'000	361,370	400,170	416,125	444,644	482,469
Value of land and buildings	$'000	39,034	40,244	42,606	42,705	45,596
Value of plant and machinery	$'000	190,949	218,387	232,193	215,046	250,672
Horse-power of engines ordinarily in use	hp	145,383	183,935	203,325	215,339	263,226

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales, Victoria, and Western Australia produce most of the refined mineral oil and by-products.

SOAP AND CANDLES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		117	117	122	118	124
Number of persons employed		3,290	3,340	3,232	3,130	3,196
Salaries and wages paid	$'000	7,135	7,542	7,679	8,265	8,596
Value of power, fuel, etc., used	$'000	841	838	832	902	844
Value of materials used	$'000	32,276	32.876	34,956	38,600	43,124
Value of production	$'000	30,005	32,754	34,610	38,205	41,389
Total value of output	$'000	63,122	66.467	70,398	77,707	85,357
Value of land and buildings	$'000	5,999	5,964	6,546	8,373	8,853
Value of plant and machinery	$'000	6,881	6.437	6,824	7,054	8,732
Horse-power of engines ordinarily in use	hp	14,495	16,256	16,812	17,058	15,948

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales and Victoria are the major centres of production in the above industry.

CHEMICAL FERTILISERS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		47	48	48	48	48
Number of persons employed		4,525	4,432	4,476	4,633	4,802
Salaries and wages paid	$'000	10,938	11,016	11,842	13,415	15,101
Value of power, fuel, etc., used	$'000	1,939	1,840	2,022	2,395	2,959
Value of materials used	$'000	55,436	59.360	65,699	77,860	93,969
Value of production	$'000	24,667	24,918	26,059	31,111	31,435
Total value of output	$'000	82,042	86,117	93,780	111,366	128,363
Value of land and buildings	$'000	12,561	12,712	14,412	16,238	16,525
Value of plant and machinery	$'000	17,468	18,761	20,739	27,167	37,618
Horse-power of engines ordinarily in use	hp	55,089	59,188	68,689	74,467	91,221

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

SMELTING, CONVERTING, REFINING, AND ROLLING OF IRON AND STEEL AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		34	33	30	31	32
Number of persons employed		34,504	35,605	37,094	38,469	39,146
Salaries and wages paid	$'000	88,474	95,090	120,041	115,917	121,972
Value of power, fuel, etc., used	$'000	67,905	73,547	78,955	84,413	90,637
Value of materials used	$'000	327,557	368,873	390,414	426,217	422,786
Value of production	$'000	195,306	216,504	231,902	266,937	249,795
Total value of output	$'000	590,768	658,924	701,271	777,567	763,218
Value of land and buildings	$'000	73,943	78,759	83,708	87,252	88,387
Value of plant and machinery	$'000	360,857	389,806	410,432	440,909	482,284
Horse-power of engines ordinarily in use	hp	778,470	872,050	943,974	1,019,335	1,075,145

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The greater part of the output of the above industry comes from New South Wales, with Western Australia, Victoria, and South Australia producing nearly all the remainder.

FOUNDRIES—FERROUS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62(*b*)	1962–63(*b*)	1963–64	1964–65	1965–66
Number of factories		239	231	230	228	224
Number of persons employed		7,183	7,711	8,152	8,749	8,855
Salaries and wages paid	$'000	16,178	17,940	19,942	24,338	25,069
Value of power, fuel, etc., used	$'000	2,033	2,320	2,482	2,856	2,931
Value of materials used	$'000	14,796	17,955	20.069	23.943	23,445
Value of production	$'000	22.483	24,972	29,478	36,545	38,014
Total value of output	$'000	39,312	45,247	52,029	63,344	64,390
Value of land and buildings	$'000	10,079	10,949	12,652	13,032	12,650
Value of plant and machinery	$'000	7,157	7,460	8,574	9,124	10,076
Horse-power of engines ordinarily in use	hp	31,506	32,752	34,581	34,711	34,919

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Excludes Tasmania. *See* Other engineering, below.

Tasmanian foundry output is relatively small and details prior to 1 July 1963 are included in Other engineering.

PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS) AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62(*b*)	1962–63(*b*)	1963–64	1964–65	1965–66
Number of factories		2,744	2,857	3,027	3,294	3,474
Number of persons employed		77,464	80,758	87,277	94,980	100,967
Salaries and wages paid	$'000	173,588	186,292	212,937	252,401	276,896
Value of power, fuel, etc., used	$'000	7.518	8.230	9,102	10,071	10.511
Value of materials used	$'000	296,927	334,717	389 996	449,151	480,040
Value of production	$'000	285,483	311,341	357,982	425,060	459,327
Total value of output	$'000	589,928	654,287	757,080	884,282	949,877
Value of land and buildings	$'000	148,015	162,815	178,429	199,184	221,370
Value of plant and machinery	$'000	92,355	98.263	105,786	120,380	129,838
Horse-power of engines ordinarily in use	hp	293,577	303,606	321,550	332,041	365,776

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Includes agricultural machines and implements, Tasmania.

OTHER ENGINEERING(*a*): AUSTRALIA(*b*), 1961-62 TO 1965-66

		1961–62(*c*)	1962–63(*c*)	1963–64	1964–65	1965–66
Number of factories		2,457	2,472	2,449	2,514	2,597
Number of persons employed		27,897	28,997	30,044	31,759	32,823
Salaries and wages paid	$'000	59,121	63,465	69,093	78,649	84,632
Value of power, fuel, etc., used	$'000	2,221	2,498	2,667	2,966	3,032
Value of materials used	$'000	71,915	82,198	91.145	104,778	109,007
Value of production	$'000	94,384	104,438	112,492	129,498	139,533
Total value of output	$'000	168,521	189,134	206,304	237,241	251,573
Value of land and buildings	$'000	52,847	56,375	58,584	64,014	69,998
Value of plant and machinery	$'000	35,180	36,600	40,194	43,800	47,871
Horse-power of engines ordinarily in use	hp	101,245	107,735	114,317	122,086	132,552

(*a*) Jobbing and general engineering works, n.e.i. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*c*) Includes Foundries—ferrous, Tasmania.

EXTRACTING AND REFINING OF NON-FERROUS METALS; ALLOYS AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		62	64	68	70	74
Number of persons employed		7,974	8,277	8,960	8,990	9,349
Salaries and wages paid	$'000	21.284	22,905	25,996	28,722	31,289
Value of power, fuel, etc., used	$'000	10.562	13,331	17,840	19,643	21,277
Value of materials used	$'000	143,383	194,286	235,481	274,354	325,380
Value of production	$'000	43,427	52,090	62,349	76,960	98,397
Total value of output	$'000	197,373	259,707	315,670	370,957	445,054
Value of land and buildings	$'000	23,913	28,051	37,881	40,538	41,477
Value of plant and machinery	$'000	63,899	79,506	100,851	107,294	110,421
Horse-power of engines ordinarily in use	hp	94,081	93,482	118,723	121,473	122,444

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The preceding table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore. Ore dressing and elementary smelting of metallic minerals (e.g. in the case of gold), when these are carried out in an associated plant at or near the mine, are included in the mineral industry (*see* the chapter Mineral Industry).

ELECTRICAL MACHINERY, CABLES AND APPARATUS
AUSTRALIA(*a*), 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories	1,349	1,404	1,438	1,517	1,614
Number of persons employed	52,918	55,692	59,416	65,233	67,582
Salaries and wages paid . $'000	114,039	123,113	135,806	159,359	174,616
Value of power, fuel, etc., used . $'000	5,671	6,153	6,841	7,473	7,550
Value of materials used . $'000	225,474	232,140	263,668	321,409	332,239
Value of production . $'000	186,034	201,809	229,536	260,268	298,176
Total value of output . $'000	417,178	440,103	500,045	589,151	637,966
Value of land and buildings . $'000	92,016	103,325	110,908	124,575	131,455
Value of plant and machinery . $'000	55,455	57,486	62,233	68,796	75,592
Horse-power of engines ordinarily in use . hp	128,326	134,043	142,213	153,438	158,915

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales factories account for almost two-thirds of the output of this industry.

TRAMCARS AND RAILWAY ROLLING STOCK(*a*)
AUSTRALIA(*b*), 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories	122	122	119	120	120
Number of persons employed	35,466	34,653	33,689	32,215	31,534
Salaries and wages paid . $'000	71,990	70,663	73,267	75,783	77,405
Value of power, fuel, etc., used . $'000	2,170	2,144	2,162	2,089	2,141
Value of materials used . $'000	39,248	39,371	39,622	40,785	44,280
Value of production . $'000	87,369	85,495	92,435	91,899	94,815
Total value of output . $'000	128,788	127,009	134,219	134,773	141,236
Value of land and buildings . $'000	29,307	29,357	29,372	29,353	30,254
Value of plant and machinery . $'000	35,398	37,166	38,456	39,704	39,509
Horse-power of engines ordinarily in use . hp	115,416	116,027	114,456	116,445	116,701

(*a*) Government and local authority only. (*b*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The railway and tramway workshops, which form an important part of Class 4, are owned chiefly by State governments and local authorities. *Workshops (thirteen in* 1965–66) *controlled by non-public bodies are not included in the figures above.*

MOTOR VEHICLES—CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
AUSTRALIA, 1965–66

	Construction and assembly	Repairs	Motor bodies (*a*)	Motor accessories	Total
Number of factories	51	11,844	2,612	350	14,857
Number of persons employed	24,381	72,708	38,039	18,414	153,542
Salaries and wages paid . $'000	69,244	146,085	94,395	46,834	356,558
Value of power, fuel, etc., used . $'000	5,267	4,605	3,993	2,999	16,864
Value of materials used . $'000	143,517	161,848	237,440	77,753	620,557
Value of production . $'000	110,537	231,695	158,649	76,455	577,335
Total value of output . $'000	259,320	398,149	400,081	157,207	1,214,755
Value of land and buildings . $'000	88,981	215,437	107,283	38,329	450,030
Value of plant and machinery . $'000	67,650	33,627	83,059	40,394	224.730
Horse-power of engines ordinarily in use . hp	114,643	89,394	110,183	78,609	392.829

(*a*) Includes motor body repairing, panel beating, duco spraying, etc.

The industries catering for the motor trade are included in Class 4, Industrial metals, machines and conveyances. In the table above a summary is given of the principal statistics for 1965–66 for each branch of industry associated with the motor trade of Australia.

In the next table similar details are shown for Australia for these industries combined, for the years 1961–62 to 1965–66. Victoria, New South Wales, and South Australia account for the bulk of the output of these industries. Most of the output of the other States and Territories is from repair work.

MOTOR VEHICLES—CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		13,135	13,623	13,866	14,466	14,857
Number of persons employed		121,409	135,579	143,657	152,477	153,542
Salaries and wages paid	$'000	240,583	281,091	309,204	350.387	356,558
Value of power, fuel, etc., used	$'000	11,756	13,783	15,187	16,547	16,864
Value of materials used	$'000	375,093	491,384	568,697	606,171	620,557
Value of production	$'000	391,220	448,106	494,412	548,985	577,335
Total value of output	$'000	778,069	953,273	1,078,296	1,171,704	1,214,755
Value of land and buildings	$'000	290,792	321,872	352,610	413,075	450,030
Value of plant and machinery	$'000	139.287	158,471	172,256	204,133	224,730
Horse-power of engines ordinarily in use	hp	276,293	310,518	325,925	359,693	392,829

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

SHIP AND BOAT BUILDING AND REPAIRING, MARINE ENGINEERING
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		318	335	346	378	379
Number of persons employed		14,293	14,218	14,253	14,439	15,299
Salaries and wages paid	$'000	32,928	33,366	35,043	37,952	43,865
Value of power, fuel, etc., used	$'000	862	873	901	949	1,092
Value of materials used	$'000	23,333	28,106	31,645	28,169	31,446
Value of production	$'000	39,930	40,397	40,272	44,640	52,237
Total value of output	$'000	64,126	69,375	72,817	73,758	84,774
Value of land and buildings	$'000	12.496	13,308	13.865	15,288	18,199
Value of plant and machinery	$'000	10,681	11,258	11,745	13,324	15,914
Horse-power of engines ordinarily in use	hp	75.568	77,691	81,291	82,891	86,120

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The above table includes government factories as well as those owned privately and by municipal authorities. About half the output of this industry comes from New South Wales shipyards, with Victoria and South Australia accounting for the greater part of the balance.

AGRICULTURAL MACHINES AND IMPLEMENTS
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62(*b*)	1962–63(*b*)	1963–64	1964–65	1965–66
Number of factories		497	531	556	615	671
Number of persons employed		11,317	11,785	13,818	15,582	15,069
Salaries and wages paid	$'000	22,901	25,610	33,117	39,347	37,316
Value of power, fuel, etc., used	$'000	1,535	1,633	1,940	2,150	1,825
Value of materials used	$'000	36,487	38,912	51,440	56,044	47,228
Value of production	$'000	36,325	39,632	49,702	59,172	56,027
Total value of output	$'000	74,348	80,177	103,082	117,366	105,080
Value of land and buildings	$'000	19,173	20,132	23,064	26,783	29,071
Value of plant and machinery	$'000	10,883	11,441	13,245	15,203	17,126
Horse-power of engines ordinarily in use	hp	41,339	43.226	46,606	47,125	51,642

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Excludes Tasmania. *See* Plant, Equipment and Machinery (including Machine Tools), page 1145.

Victorian factories produce more than half the output of the above industry.

NON-FERROUS METALS—ROLLING AND EXTRUSION
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		30	30	30	26	28
Number of persons employed		6,566	6,751	6,983	7,420	7,362
Salaries and wages paid	$'000	16,935	17,850	20,293	22,318	23,322
Value of power, fuel, etc., used	$'000	3,131	3,162	3,689	4,089	4,401
Value of materials used	$'000	80,243	86,981	104,550	145,175	150,456
Value of production	$'000	30,868	35,734	41,399	45,021	56,567
Total value of output	$'000	114,242	125,878	149,637	194,285	211,424
Value of land and buildings	$'000	19,545	20,022	21,531	24,035	24,468
Value of plant and machinery	$'000	34,622	39,739	45,932	61,413	63,622
Horse-power of engines ordinarily in use	hp	80,662	90,942	132,763	131,979	139,714

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

NON-FERROUS METALS—FOUNDING, CASTING, ETC.
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		477	462	461	473	482
Number of persons employed		9,833	10,467	11,180	12,264	12,070
Salaries and wages paid	$'000	20.789	22,613	25,389	30,175	30,189
Value of power, fuel, etc., used	$'000	1,794	1,964	2,100	2,363	2,234
Value of materials used	$'000	39,872	46,702	53,556	65,581	64,246
Value of production	$'000	36,733	40,913	49,276	58,727	57,231
Total value of output	$'000	78,399	89,579	104,932	126,671	123,710
Value of land and buildings	$'000	18,677	19,654	21,150	24,104	25,679
Value of plant and machinery	$'000	13,439	14,617	15,163	16,001	18,763
Horse-power of engines ordinarily in use	hp	34,285	36,561	38,729	41,295	44,300

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

SHEET METAL WORKING, PRESSING AND STAMPING
AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		1,142	1,156	1,181	1,232	1,254
Number of persons employed		26,545	27,924	29,551	31,444	32,962
Salaries and wages paid	$'000	55,666	59,854	66,877	76,289	83,550
Value of power, fuel, etc., used	$'000	3,216	3,543	3,718	4,040	4,281
Value of materials used	$'000	132.210	139,767	156,346	185,318	193,094
Value of production	$'000	101,073	113,707	123,360	139,261	148,347
Total value of output	$'000	236,499	257,017	283,425	328,619	345,722
Value of land and buildings	$'000	55,770	59,812	65,804	69,981	74,650
Value of plant and machinery	$'000	36,108	40,461	44,779	46,213	50,356
Horse-power of engines ordinarily in use	hp	79,963	84,487	89,116	94,436	101,694

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

PIPES, TUBES AND FITTINGS—FERROUS: AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		62	58	58	56	58
Number of persons employed		8,272	8,784	9,138	9,627	9,630
Salaries and wages paid	$'000	20,243	22,394	24,495	28,329	28,950
Value of power, fuel, etc., used	$'000	2,577	3,213	3,425	3,315	3,228
Value of materials used	$'000	51,756	54,775	60,047	71,829	67,589
Value of production	$'000	37,782	38,751	45,258	54,241	53,865
Total value of output	$'000	92,115	96,738	108,730	129,384	124,682
Value of land and buildings	$'000	14,689	17,593	17,921	17,697	18,330
Value of plant and machinery	$'000	15,483	19,579	22,330	21,114	20,851
Horse-power of engines ordinarily in use	hp	47,547	56,219	60,447	67,991	67,410

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales, South Australia, and Victoria produce most of the output of the above industry.

WIRE AND WIRE WORKING (INCLUDING NAILS) AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		283	289	298	305	313
Number of persons employed		9,804	10,377	10,433	10,776	10,901
Salaries and wages paid	$'000	21,229	23,820	24,959	27,599	28,045
Value of power, fuel, etc., used	$'000	1,762	1,888	2,033	2,131	2,132
Value of materials used	$'000	69,936	80,581	92,097	102,344	95,994
Value of production	$'000	38,722	43,909	46,710	53,102	53,799
Total value of output	$'000	110,420	126,379	140,840	157,577	151,924
Value of land and buildings	$'000	19,570	21,200	21,743	24,365	28,858
Value of plant and machinery	$'000	13,988	16,168	15,770	17,384	20,634
Horse-power of engines ordinarily in use	hp	39,010	43,818	42,624	44,154	51,303

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales and Victoria predominate in this industry.

WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		327	330	355	391	406
Number of persons employed		14,707	16,586	16,907	18,359	17,683
Salaries and wages paid	$'000	29,204	33,240	35,772	40,265	39,812
Value of power, fuel, etc , used	$'000	1,171	1,315	1,321	1,355	1,388
Value of materials used	$'000	71,990	78,940	78,847	84,546	78,849
Value of production	$'000	47,173	54,437	56,834	63,333	65,150
Total value of output	$'000	120,334	134.692	137,002	149,233	145,387
Value of land and buildings	$'000	23,129	24,104	23,883	25,865	28,000
Value of plant and machinery	$'000	12,893	13,266	12,888	12,854	13,027
Horse-power of engines ordinarily in use	hp	15,353	15,216	14,720	15,316	16,038

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The above industry is confined mainly to New South Wales, Victoria and South Australia.

COTTON SPINNING AND WEAVING: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		88	88	85	80	78
Number of persons employed		8,980	9,313	9,869	10,270	10,110
Salaries and wages paid	$'000	16,490	17,262	19,187	21,447	22,060
Value of power, fuel, etc., used	$'000	2,066	2,267	2,549	2,545	2,622
Value of materials used	$'000	38,323	41,635	46,619	48,512	47,840
Value of production	$'000	29,654	33,521	38,193	42,554	43,401
Total value of output	$'000	70,043	77,423	87,362	93,611	93,863
Value of land and buildings	$'000	25,818	28,860	32,264	29,966	24,424
Value of plant and machinery	$'000	21,611	24,382	24,402	23,434	22,776
Horse-power of engines ordinarily in use	hp	40,592	41,581	43,752	42,422	42,007

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The growing of cotton is treated in some detail in the chapter Rural Industry. The production of raw cotton is supplemented by imports from overseas, chiefly (in 1965–66) from the United States of America, Mexico, Uganda, Brazil, Pakistan, and Peru.

WOOL CARDING, SPINNING AND WEAVING: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		134	134	129	131	124
Number of persons employed		20,102	21,131	20,061	20,397	19,642
Salaries and wages paid	$'000	34,162	36,461	35,477	38,778	38,289
Value of power, fuel, etc., used	$'000	2,913	3,014	2,873	2,942	2,995
Value of materials used	$'000	86,245	97,027	107,378	103,138	99,743
Value of production	$'000	53,186	58,652	55,799	59,103	57,684
Total value of output	$'000	142,344	158,693	166,051	165,183	160,422
Value of land and buildings	$'000	21,823	23,150	23,326	24,210	25,654
Value of plant and machinery	$'000	26,470	27,440	26,550	29,550	29,090
Horse-power of engines ordinarily in use	hp	70,610	71,354	71,318	71,180	68,341

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Victoria produces more than half the output of this industry.

HOSIERY AND OTHER KNITTED GOODS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		658	625	607	602	592
Number of persons employed		23,403	24,627	25,471	25,593	25,559
Salaries and wages paid	$'000	36,990	40,646	42,834	46,267	48,343
Value of power, fuel, etc., used	$'000	1,589	1,614	1,691	1,753	1,829
Value of materials used	$'000	83,545	92,517	98,422	107,819	108,939
Value of production	$'000	71,896	76,180	83,674	91,207	93,348
Total value of output	$'000	157,030	170,311	183,788	200,778	204,115
Value of land and buildings	$'000	30,458	31,499	32,685	34,218	37,029
Value of plant and machinery	$'000	21,222	22,753	24,370	25,996	29,793
Horse-power of engines ordinarily in use	hp	23,250	23,106	24,344	25,344	26,872

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Victorian mills produce about three-quarters of the Australian output of knitted goods, most of the balance being produced in New South Wales.

RAYON, ACRYLICS AND OTHER SYNTHETIC FIBRES AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		44	45	43	38	40
Number of persons employed		3,947	4,329	4,527	4,104	4,562
Salaries and wages paid	$'000	7,866	9,079	9,825	9,212	10,329
Value of power, fuel, etc., used	$'000	1,033	1,143	1,236	1,192	1,338
Value of materials used	$'000	19,768	25,733	27,483	27,561	32,065
Value of production	$'000	13,646	16,089	18,191	19,161	20,957
Total value of output	$'000	34.446	42,965	46,910	47,914	54,359
Value of land and buildings	$'000	7,350	8,596	8,711	7,854	8,737
Value of plant and machinery	$'000	7,956	9,141	8,688	7,255	10,137
Horse-power of engines ordinarily in use	hp	13,632	14,202	14,279	25,981	27,861

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Victoria produces nearly two-thirds of the total Australian output of synthetic fibre textiles, most of the balance being produced in New South Wales.

ROPE AND CORDAGE: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		26	26	25	25	25
Number of persons employed		2,146	2,307	2,404	2,462	2,247
Salaries and wages paid	$'000	4,379	4,861	5,118	5,873	5,435
Value of power, fuel, etc., used	$'000	346	369	396	425	362
Value of materials used	$'000	8,480	9,590	11,911	13,409	10,510
Value of production	$'000	8,244	9,504	9,577	11,008	9,261
Total value of output	$'000	17,070	19,463	21.884	24,841	20,133
Value of land and buildings	$'000	5,403	5,508	5,492	5,642	5,686
Value of plant and machinery	$'000	3,437	3,568	3,600	3,885	3,916
Horse-power of engines ordinarily in use	hp	15,153	15,240	15,407	13,032	16,557

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Most of the production takes place in New South Wales and Victoria.

WOOLSCOURING AND FELLMONGERY: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		58	56	54	56	53
Number of persons employed		2,803	2,842	2,570	2,387	2,340
Salaries and wages paid	$'000	6,307	6,594	6,152	6,389	6,420
Value of power, fuel, etc., used	$'000	1,170	1,238	1,212	1,205	1,195
Value of materials used	$'000	28,062	31,928	35,621	31,404	28,789
Value of production	$'000	8,866	9,271	8,545	8,929	8,879
Total value of output	$'000	38,098	42,437	45,378	41,538	38,863
Value of land and buildings	$'000	4,801	5,687	6,082	6,558	6,408
Value of plant and machinery	$'000	2,722	3,069	2,993	3,383	3,110
Horse-power of engines ordinarily in use	hp	16,779	17,544	18,089	17,939	16,715

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Most of the production from the above industry comes from South Australia, Victoria and New South Wales.

TANNING, CURRYING AND LEATHER DRESSING AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		108	102	102	102	102
Number of persons employed		4,159	4,215	4,298	4,277	4,012
Salaries and wages paid	$'000	9,224	9,473	9,910	10,828	10,242
Value of power, fuel, etc., used	$'000	977	1,001	1,021	1,045	988
Value of materials used	$'000	28,560	25,156	23,881	23,785	26,134
Value of production	$'000	14,785	16,228	17,165	16,576	16,323
Total value of output	$'000	44,321	42,386	42,066	41,407	43,445
Value of land and buildings	$'000	7,074	7,329	8,205	8,295	8,096
Value of plant and machinery	$'000	4,483	4,531	4,761	5,138	5,232
Horse-power of engines ordinarily in use	hp	31,278	27,598	29,598	30,199	31,518

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales, Victorian and Queensland factories produce most of the output of the above industry.

LEATHER GOODS (INCLUDING SADDLERY AND BELTING) AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		392	386	383	378	374
Number of persons employed		4,315	4,519	4,646	4,677	4,719
Salaries and wages paid	$'000	6,553	6,950	7,260	7,877	8,245
Value of power, fuel, etc., used	$'000	133	148	161	141	144
Value of materials used	$'000	12,064	13,151	14,083	15,190	16,277
Value of production	$'000	11,356	12,336	12,854	14,259	15,173
Total value of output	$'000	23,554	25,635	27,097	29,590	31,593
Value of land and buildings	$'000	6,383	6,885	7,238	7,934	9,146
Value of plant and machinery	$'000	1,690	1,484	1,572	1,542	1,741
Horse-power of engines ordinarily in use	hp	3,155	3,387	3,716	3,001	3,635

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

As with other industries of this class, New South Wales and Victorian factories dominate this industry.

TAILORING AND READY-MADE CLOTHING: AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		1,839	1,847	1,892	1,879	1,805
Number of persons employed		32,496	33,234	34,188	35,092	35,529
Salaries and wages paid	$'000	46,099	48,543	51,126	55,926	58,884
Value of power, fuel, etc., used	$'000	1,000	1,026	1,059	1,089	1,104
Value of materials used	$'000	82,170	88,153	92,343	100,238	103,389
Value of production	$'000	75,170	80,043	86,803	95,711	102,855
Total value of output	$'000	158,340	169,223	180,206	197,037	207,348
Value of land and buildings	$'000	32,378	35,586	38,214	41,397	43,810
Value of plant and machinery	$'000	6,902	7,032	7,406	8,255	8,819
Horse-power of engines ordinarily in use	hp	12,618	12,939	13,348	13,515	14,293

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales and Victorian factories account for more than 90 per cent of the output of this industry.

DRESSMAKING AND MILLINERY: AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		1,183	1,189	1,124	1,146	1,181
Number of persons employed		14,466	15,093	14,930	15,041	15,618
Salaries and wages paid	$'000	18,943	20,373	21,188	22,577	24,387
Value of power, fuel, etc., used	$'000	390	420	439	447	486
Value of materials used	$'000	24,076	26,055	28,285	29,595	29,478
Value of production	$'000	30,345	33,394	34,240	36,771	38,837
Total value of output	$'000	54,811	59,869	62,964	66,812	68,801
Value of land and buildings	$'000	17,322	18,231	19,232	21,018	22,980
Value of plant and machinery	$'000	2,166	2,365	2,742	2,813	3,136
Horse-power of engines ordinarily in use	hp	4,543	4,831	4,955	5,628	6,141

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

About two-thirds of the total Australian output comes from Victorian establishments.

SHIRTS, COLLARS AND UNDERCLOTHING: AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		353	351	329	337	333
Number of persons employed		12,276	13,304	13,271	13,823	14,719
Salaries and wages paid	$'000	16,484	17,967	18,312	20,725	23,525
Value of power, fuel, etc., used	$'000	313	333	335	362	386
Value of materials used	$'000	31,276	32,606	34,453	35,748	36,120
Value of production	$'000	26,552	29,113	29,720	32,602	37,289
Total value of output	$'000	58,141	62,050	64,507	68,712	73,795
Value of land and buildings	$'000	9,135	10,328	11,086	12,209	13,493
Value of plant and machinery	$'000	2,689	2,705	2,942	3,469	3,818
Horse-power of engines ordinarily in use	hp	5,529	5,649	5,928	6,188	6,557

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Victorian and New South Wales factories produce most of the output of the above industry.

FOUNDATION GARMENTS: AUSTRALIA(*a*), 1961–62 TO 1965–66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		66	64	62	64	65
Number of persons employed		3,981	4,012	3,948	4,176	4,492
Salaries and wages paid	$'000	5,345	5,569	5,616	6,457	6,969
Value of power, fuel, etc., used	$'000	99	102	104	105	112
Value of materials used	$'000	11,559	11,628	13.057	14,658	15,739
Value of production	$'000	10,705	10,931	12,428	13,994	14,909
Total value of output	$'000	22,352	22,661	25,589	28,757	30,760
Value of land and buildings	$'000	4,011	4,595	4,918	5,411	5,227
Value of plant and machinery	$'000	1,068	1,380	1,414	1,665	1,762
Horse-power of engines ordinarily in use	hp	2,023	1,987	2,082	2,353	2,336

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

BOOTS AND SHOES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62(*b*)	1962–63(*b*)	1963–64	1964–65	1965–66
Number of factories		447	439	393	398	394
Number of persons employed		20,084	20,502	21,030	20,779	20,072
Salaries and wages paid	$'000	33,436	34,898	36,459	38,372	37,507
Value of power, fuel, etc., used	$'000	655	656	686	724	743
Value of materials used	$'000	59,991	61,165	63,347	63,931	60,849
Value of production	$'000	53,693	54,821	58,342	58,738	61,523
Total value of output	$'000	114.339	116,642	122,375	123,393	123,114
Value of land and buildings	$'000	13.426	14.238	16,243	17,057	18.229
Value of plant and machinery	$'000	10,768	14,097	16.077	18,805	19,258
Horse-power of engines ordinarily in use	hp	14.805	15,351	15,594	15,394	16,117

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Includes details of Boot and shoe repairing in Tasmania.

The table above refers to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information for that State. Factories engaged in the manufacture of sand-shoes, goloshes and gum, etc., boots of rubber are not included here, but are classified under Rubber Goods, *see* page 1159. About two-thirds of the output of boots and shoes is produced in Victoria.

FLOUR-MILLING: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		125	118	114	108	107
Number of persons employed		4,405	4,219	4,512	4,253	4,152
Salaries and wages paid	$'000	9,929	9,680	10,560	10,736	10,934
Value of power, fuel, etc., used	$'000	1,902	1,873	2,028	1,964	1,880
Value of materials used	$'000	123,862	120,792	132,713	124,974	122,433
Value of production	$'000	23,456	23,910	27,962	29,210	30,184
Total value of output	$'000	149,220	146,575	162,703	156,148	154,497
Value of land and buildings	$'000	14,227	15,769	18.024	17,615	18,272
Value of plant and machinery	$'000	10,922	11,696	13,065	13,069	13,506
Horse-power of engines ordinarily in use	hp	48,586	47,393	54,256	54,450	56,970

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

OTHER GRAIN MILLS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		242	244	254	271	269
Number of persons employed		5,106	5,289	5.322	5,774	5,979
Salaries and wages paid	$'000	10.423	10,954	11.495	13,116	14,586
Value of power, fuel, etc., used	$'000	2,100	2,164	2.227	2,383	2,609
Value of materials used	$'000	65,589	69,965	77,155	93,800	106,972
Value of production	$'000	29,445	32.399	35.718	41,504	45,401
Total value of output	$'000	97,134	104,528	115.100	137,687	154,983
Value of land and buildings	$'000	12,467	13,959	15.464	16,885	18,694
Value of plant and machinery	$'000	13,653	14,821	15.378	17,772	18,400
Horse-power of engines ordinarily in use	hp	48,674	51,610	53.849	59,279	63,835

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

BAKERIES (INCLUDING CAKES AND PASTRY): AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		3,855	3,779	3,689	3,681	3,580
Number of persons employed		20,566	21,061	21,627	22,447	22,950
Salaries and wages paid	$'000	31,899	33,708	36,163	40,162	42,875
Value of power, fuel, etc., used	$'000	5,338	5,479	5,635	5,904	6,075
Value of materials used	$'000	97,754	100,009	104,820	113,476	118,707
Value of production	$'000	77,063	83,058	86,550	93,901	108,346
Total value of output	$'000	180,155	188,546	197.005	213,280	233,128
Value of land and buildings	$'000	55,076	58,474	61.898	67,902	71,946
Value of plant and machinery	$'000	33,783	37,407	37,903	40,277	40,473
Horse-power of engines ordinarily in use	hp	35,934	37,589	40,175	43,209	44,947

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The table above contains information regarding establishments in which the manufacture of bread, cakes, etc. was carried on. Since the details refer only to establishments coming within the definition of a factory as explained at the beginning of this chapter, the table does not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded.

BISCUITS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		53	52	53	53	56
Number of persons employed		6,092	6,199	6,262	6,474	6,716
Salaries and wages paid	$'000	10,903	11,237	11,696	13,159	13,677
Value of power, fuel, etc., used	$'000	1,106	1,145	1,171	1,242	1,317
Value of materials used	$'000	25,448	26,052	27,483	29,714	32,546
Value of production	$'000	20,670	20,960	21,628	24,910	26,368
Total value of output	$'000	47,224	48,157	50,281	55,867	60,231
Value of land and buildings	$'000	10,531	11,411	11,278	12,926	14,404
Value of plant and machinery	$'000	8,341	8,462	8,868	8,422	10,180
Horse-power of engines ordinarily in use	hp	14,017	13,443	16,381	16,791	17,395

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Three-quarters of the output of biscuits comes from New South Wales and Victoria.

SUGAR-MILLS: NEW SOUTH WALES AND QUEENSLAND, 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964–65	1965–66
New South Wales—					
Number of factories	3	3	3	3	3
Number of persons employed	219	261	247	283	328
Queensland—					
Number of factories	31	31	31	31	31
Number of persons employed	6,053	6,387	6,981	7,924	7,008

Sugar-cane is grown in New South Wales and Queensland, and particulars of area, yield, etc. are given in detail in the chapter Rural Industry. The products of the sugar-mills are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. In 1965–66 there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia, and Western Australia.

CONFECTIONERY: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		197	189	189	187	180
Number of persons employed		7,987	8,015	8,156	8,301	8,590
Salaries and wages paid	$'000	14,277	14,555	15,185	16,685	18,037
Value of power, fuel, etc., used	$'000	1,451	1,542	1,596	1,613	1,653
Value of materials used	$'000	44,955	46,426	49,470	53,864	53,414
Value of production	$'000	29,660	31,604	32,371	33,984	38,303
Total value of output	$'000	76,065	79,572	83,437	89,461	93,371
Value of land and buildings	$'000	15,269	17,264	17,459	18,334	20,232
Value of plant and machinery	$'000	15,270	16,954	17,780	19,095	19,776
Horse-power of engines ordinarily in use	hp	38,948	42,665	43,165	41,806	43,790

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales, Victoria and Tasmania produce most of the output of the above industry.

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		172	170	167	161	160
Number of persons employed		12,092	11,897	12.397	12,672	13,573
Salaries and wages paid	$'000	23,652	24,152	25,961	29,281	31,989
Value of power, fuel, etc., used	$'000	2,401	2,412	2.609	2,868	3,167
Value of materials used	$'000	101,634	95.297	103,551	116,182	134,813
Value of production	$'000	55,805	55,764	60.924	66,754	74,873
Total value of output	$'000	159.841	153.473	167.084	185,805	212.852
Value of land and buildings	$'000	28.838	29,840	32.105	34,415	39,166
Value of plant and machinery	$'000	24,471	26.458	30,011	33,473	40,649
Horse-power of engines ordinarily in use	hp	45,852	48,574	53,024	54,139	59,306

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

BACON-CURING: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		83	87	85	79	81
Number of persons employed		4,482	4,675	4,865	5,098	5,419
Salaries and wages paid	$'000	8,831	9.315	9,924	11,101	12,371
Value of power, fuel, etc., used	$'000	985	1,042	1,113	1,151	1,198
Value of materials used	$'000	54,190	61,989	67,841	74,997	80,060
Value of production	$'000	19,050	19,563	19,155	22,982	29,124
Total value of output	$'000	74,226	82,595	88,109	99,129	110,381
Value of land and buildings	$'000	8,045	8,546	8,750	8,997	9,894
Value of plant and machinery	$'000	4,958	5,455	5,919	6,190	6,951
Horse-power of engines ordinarily in use	hp	17,537	18,236	18,152	18,396	20,141

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Bacon and ham and other pig products are dealt with more fully in the chapter Rural Industry.

BUTTER, CHEESE AND CONDENSED AND PROCESSED MILK AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		353	348	347	344	337
Number of persons employed		11,317	11,320	11,510	11,505	11,454
Salaries and wages paid	$'000	24,476	24,883	26,314	27,680	28,810
Value of power, fuel, etc., used	$'000	5,863	5,961	6.138	6 364	6,500
Value of materials used	$'000	223,850	226,691	244,587	261,066	262,480
Value of production	$'000	51,586	52,424	59,236	65,028	67,970
Total value of output	$'000	281,299	285,077	309.961	332,458	336,949
Value of land and buildings	$'000	30.554	31,032	31.534	34,544	38,681
Value of plant and machinery	$'000	35,443	37,797	39,361	40,445	46,398
Horse-power of engines ordinarily in use	hp	114,643	118,087	120.084	120,208	127,837

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Victoria produces more than half the total Australian output of the industry. The butter, cheese and condensed milk industries are dealt with more fully in the chapter Rural Industry.

MEAT AND FISH PRESERVING: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		149	159	164	173	175
Number of persons employed		9,491	10,032	10.161	10,225	10,659
Salaries and wages paid	$'000	21,048	21,917	22,923	24,993	26,916
Value of power, fuel, etc., used	$'000	2,623	2,854	3,147	3,318	3,527
Value of materials used	$'000	133,621	142,070	158,668	178.508	200.506
Value of production	$'000	37,687	38,266	43,539	46,456	55,209
Total value of output	$'000	173,931	183,190	205,353	228,283	259,243
Value of land and buildings	$'000	20,859	20,624	21,013	26,840	28,050
Value of plant and machinery	$'000	14,163	15,447	15,162	19,587	21,633
Horse-power of engines ordinarily in use	hp	49.253	53,652	56,424	54,214	60,346

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The industries included in this group are engaged chiefly in the freezing and preserving of meat. Most abattoirs are excluded, except in Queensland and Western Australia. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. In recent years there has been considerable expansion in the canning of meat and fish. Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in the chapter Rural Industry.

CONDIMENTS, COFFEE, SPICES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		258	260	238	239	237
Number of persons employed		4,463	5,283	5,218	5,166	5,431
Salaries and wages paid	$'000	7,714	9,805	9,975	9,983	11,669
Value of power, fuel, etc., used	$'000	597	685	743	754	867
Value of materials used	$'000	39,469	43,940	45,737	48,805	54,706
Value of production	$'000	21,211	27,558	27,506	29,459	33,534
Total value of output	$'000	61,278	72,183	73,986	79,018	89,108
Value of land and buildings	$'000	15,284	18,519	18,766	21,091	23,165
Value of plant and machinery	$'000	7,143	8,330	7,956	10,099	11,827
Horse-power of engines ordinarily in use	hp	14,625	16,811	17,088	18,590	19,500

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

BREWERIES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		25	24	24	26	26
Number of persons employed		5,512	5,741	5,744	5,885	5,943
Salaries and wages paid	$'000	13,756	14,001	14,753	15,946	16,997
Value of power, fuel, etc., used	$'000	3,062	3,118	3,140	3,160	3,365
Value of materials used	$'000	51,496	54,311	59,967	64,746	65,255
Value of production	$'000	43,113	45,609	48,355	51,878	53,509
Total value of output(*b*)	$'000	97,671	103,038	111,463	119,784	122,130
Value of land and buildings	$'000	27,148	29,681	30,121	31,363	32,400
Value of plant and machinery	$'000	31,250	30,005	30,733	32,442	33,129
Horse-power of engines ordinarily in use	hp	50,083	50,237	53,765	56,549	62,045

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Excludes excise duty.

AERATED WATERS AND CORDIALS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		535	525	509	503	495
Number of persons employed		4,960	5,190	5,193	5,303	5,717
Salaries and wages paid	$'000	8,660	9,054	9,434	10,415	11,940
Value of power, fuel, etc., used	$'000	808	879	936	1,020	1,062
Value of materials used	$'000	25,543	28,058	30,985	35,693	41,257
Value of production	$'000	23,985	26,691	27,473	31,758	33,305
Total value of output	$'000	50,335	55,629	59,395	68,471	75,624
Value of land and buildings	$'000	15,670	17,251	19,027	19,770	20,473
Value of plant and machinery	$'000	11,403	11,991	12,688	13,031	14,152
Horse-power of engines ordinarily in use	hp	16,350	17,116	17,610	18,713	20,190

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

WINERIES AND DISTILLERIES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		153	161	169	170	177
Number of persons employed		2,111	2,084	2,204	2,344	2,408
Salaries and wages paid	$'000	4,136	4,100	4,458	5,057	5,587
Value of power, fuel, etc., used	$'000	810	772	798	907	893
Value of materials used	$'000	19,535	18,271	21,431	23,988	23,377
Value of production	$'000	9,728	9,468	11,874	15,815	15,137
Total value of output	$'000	30,072	28,511	34,103	40,711	39,408
Value of land and buildings	$'000	6,081	6,588	7,285	8,015	8,956
Value of plant and machinery	$'000	6,660	7,429	7,789	8,370	8,832
Horse-power of engines ordinarily in use	hp	16,676	17,601	17,942	18,807	19,265

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

South Australia is the principal wine-producing State, and produces more than half the Australian output. Most of the remainder comes from New South Wales and Victoria.

TOBACCO, CIGARS AND CIGARETTES: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		18	18	15	15	16
Number of persons employed		4,914	4,671	4,498	4,670	4,843
Salaries and wages paid	$'000	10,564	10,277	10,898	11,513	11,878
Value of power, fuel, etc., used	$'000	468	512	508	547	615
Value of materials used	$'000	77,136	78,592	78,380	81,280	77,434
Value of production	$'000	38,982	40,377	45,233	52,482	57,426
Total value of output(*b*)	$'000	116,585	119,481	124,121	134,308	135,474
Value of land and buildings	$'000	8,613	9,280	10,003	10,424	12,448
Value of plant and machinery	$'000	13,719	14,187	13,784	14,104	15,231
Horse-power of engines ordinarily in use	hp	11,203	12,033	11,955	12,596	13,188

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory. (*b*) Excludes excise duty.

There are no such factories in South Australia, Tasmania, Northern Territory, and Australian Capital Territory, and Queensland and Western Australian production is relatively small.

ICE-CREAM: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		55	54	53	54	56
Number of persons employed		2,237	2,295	2,518	2,639	2,687
Salaries and wages paid	$'000	4,383	4,791	5,429	6,019	6,587
Value of power, fuel, etc., used	$'000	825	905	1,040	1,106	1,214
Value of materials used	$'000	14,324	15,273	17,097	19,301	23,510
Value of production	$'000	11,972	11,676	13,903	15,636	16,790
Total value of output	$'000	27,121	27,854	32,040	36,043	41,514
Value of land and buildings	$'000	7,185	9,654	11,297	13,486	13,993
Value of plant and machinery	$'000	7,500	13,468	15,260	12,702	12,722
Horse-power of engines ordinarily in use	hp	16,071	18,468	20,562	21,415	24,360

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

SAWMILLS AND PLYWOOD AND VENEER MILLS
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		2,585	2,514	2,421	2,353	2,335
Number of persons employed		32,382	31,993	32,202	32,271	33,104
Salaries and wages paid	$'000	59,631	60,217	63,119	67,479	71,910
Value of power, fuel, etc., used	$'000	5,196	5,258	5,325	5,552	5,658
Value of materials used	$'000	143,356	146,066	156,464	166,841	169,627
Value of production	$'000	106,984	106,431	115,903	128,319	133,222
Total value of output	$'000	255,535	257,755	277,691	300,713	308,507
Value of land and buildings	$'000	36,028	37,590	39,004	40,967	45,254
Value of plant and machinery	$'000	40,444	40,573	40,111	41,964	44,677
Horse-power of engines ordinarily in use	hp	417,084	428,421	437,807	433,626	453,625

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Sawmilling is the most important industry in Class 10. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the above table, together with plywood and veneer mills. The figures exclude particulars of a small number of itinerant and travelling sawmills.

JOINERY: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		2,256	2,247	2,239	2,320	2,329
Number of persons employed		17,239	17,509	17,594	18,597	18,954
Salaries and wages paid	$'000	34,051	35,340	36,705	40,956	43,172
Value of power, fuel, etc., used	$'000	919	965	969	1,062	1,089
Value of materials used	$'000	63,174	64,092	70,156	78,939	81,768
Value of production	$'000	53,423	55,761	59,291	67,506	69,344
Total value of output	$'000	117,517	120,818	130,416	147,507	152,201
Value of land and buildings	$'000	28,673	30,543	32,757	37,356	40,473
Value of plant and machinery	$'000	10,096	10,200	10,811	11,352	12,036
Horse-power of engines ordinarily in use	hp	86,240	89,459	89,578	93,636	96,683

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

CABINET AND FURNITURE MAKING AND UPHOLSTERY
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		1,617	1,625	1,638	1,639	1,624
Number of persons employed		15,132	15,726	15,948	16,361	16,630
Salaries and wages paid	$'000	28,166	29,395	30.874	34,047	36,254
Value of power, fuel, etc., used	$'000	736	776	830	869	914
Value of materials used	$'000	53,110	56,241	61,061	67,330	67,146
Value of production	$'000	46,096	48,738	52,312	58,816	63,298
Total value of output	$'000	99,942	105,755	114,204	127,014	131,359
Value of land and buildings	$'000	27,246	29.309	30,906	34.730	37,032
Value of plant and machinery	$'000	6.316	6,982	7,716	8,029	8,839
Horse-power of engines ordinarily in use	hp	46,000	45,641	46,599	47,136	52,932

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

These industries constitute the principal manufactures in Class 11.

GOVERNMENT AND GENERAL PRINTING WORKS
AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		1,706	1,738	1,780	1,875	1,904
Number of persons employed		29,936	30,614	31,637	33,222	34,747
Salaries and wages paid	$'000	61,826	64,592	69.623	78,133	85,444
Value of power, fuel, etc., used	$'000	1,884	2,058	2,227	2,504	2,761
Value of materials used	$'000	74.945	82,395	89.280	98,703	105,269
Value of production	$'000	110,134	117,270	124,881	138,981	153,535
Total value of output	$'000	186,963	201,723	216.388	240,188	261,564
Value of land and buildings	$'000	59.364	61,046	67,550	79,610	84,829
Value of plant and machinery	$'000	47,418	50,504	54,510	60,855	65,295
Horse-power of engines ordinarily in use	hp	50,129	52,182	54,491	58,731	61,942

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

The establishments covered in the table above include those engaged in lithographic printing, bookbinding, paper ruling, and linotyping, and Government printing works.

NEWSPAPERS AND PERIODICALS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		421	415	411	413	407
Number of persons employed		15,491	15,500	16,052	17,287	17,476
Salaries and wages paid	$'000	37,748	38,140	40,225	46,120	48,516
Value of power, fuel, etc., used	$'000	1,352	1,392	1,481	1,587	1,646
Value of materials used	$'000	55,634	58,153	61.446	66,240	67,181
Value of production	$'000	69,088	70,385	74.132	83,292	88,401
Total value of output	$'000	126,074	129,930	137,059	151,119	157,228
Value of land and buildings	$'000	33,236	34,396	39,053	42,958	45,093
Value of plant and machinery	$'000	31,438	32,400	37,403	42,588	44,263
Horse-power of engines ordinarily in use	hp	45,776	44,094	44,029	48,021	49,985

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

MANUFACTURED STATIONERY: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		153	150	148	142	144
Number of persons employed		5,221	5,436	5,563	5,870	6,134
Salaries and wages paid	$'000	10,262	10,946	11,746	13,077	14,445
Value of power, fuel, etc., used	$'000	450	465	524	560	561
Value of materials used	$'000	30,328	33,299	37,028	39,299	41,283
Value of production	$'000	25,290	26,818	30.272	34,597	38,655
Total value of output	$'000	56,068	60,582	67.824	74.457	80,499
Value of land and buildings	$'000	12,843	14,329	14,645	15.496	17,384
Value of plant and machinery	$'000	8,793	10,274	10,774	10,706	12,261
Horse-power of engines ordinarily in use	hp	10,853	10,936	11,955	12,625	13,554

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

New South Wales and Victoria produce about 90 per cent of the output of this industry.

CARDBOARD BOXES, CARTONS AND CONTAINERS, AND PAPER BAGS AUSTRALIA(a), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		239	243	254	250	252
Number of persons employed		10,133	10,832	11,501	12,158	12,839
Salaries and wages paid	$'000	20,432	22,236	24,543	28,027	30,121
Value of power, fuel, etc., used	$'000	892	965	1,045	1,191	1,266
Value of materials used	$'000	71,375	79,851	87,003	97,553	104,210
Value of production	$'000	44,824	48,202	53,695	60,615	64,843
Total value of output	$'000	117,090	129,018	141,743	159,359	170,319
Value of land and buildings	$'000	22,886	27,081	30,764	38,002	41,304
Value of plant and machinery	$'000	21,847	25,083	26,268	29,899	32,100
Horse-power of engines ordinarily in use	hp	22,961	26,217	28,154	31,661	34,834

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

PAPER MAKING, INCLUDING PULP MILLS: AUSTRALIA(a), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		23	24	26	25	25
Number of persons employed		8,147	8,678	9,205	9,411	9,782
Salaries and wages paid	$'000	22,437	24,694	28,011	31,000	32,780
Value of power, fuel, etc., used	$'000	8,219	9,305	9,944	10,763	11,589
Value of materials used	$'000	53,010	59,800	66,555	76,704	81,786
Value of production	$'000	52,911	60,409	66,195	74,466	75,050
Total value of output	$'000	114,140	129,514	142,695	161,932	168,425
Value of land and buildings	$'000	31,809	34,336	34,310	35,915	44,985
Value of plant and machinery	$'000	67,470	73,911	73,352	78,842	92,452
Horse-power of engines ordinarily in use	hp	215,927	256,291	256,769	270,526	286,522

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938–39 that any marked development occurred. The number of factories operating in 1965–66 comprised four in New South Wales, eleven in Victoria, two in Queensland, two in South Australia, two in Western Australia, and four in Tasmania. In Tasmania, newsprint, writing and printing papers are produced, and in the other States, wrappings, other papers and boards. Mills producing pulp from eucalypt timber are operating in Victoria and Tasmania, while in South Australia pulp is being produced from locally-grown softwoods.

RUBBER GOODS: AUSTRALIA(a), 1961-62 TO 1965-66

		1961–62	1962–63	1963-64	1964–65	1965–66
Number of factories		114	117	119	120	125
Number of persons employed		13,993	15,702	16.944	17,414	17,071
Salaries and wages paid	$'000	31,439	37,482	41,181	46,199	46,082
Value of power, fuel, etc., used	$'000	4,562	5,112	5,354	5,419	5,563
Value of materials used	$'000	71,884	86,020	93,452	101,143	99,857
Value of production	$'000	52,447	61,433	67,037	69,095	70,289
Total value of output	$,000	128,893	152,565	165.843	175,658	175,709
Value of land and buildings	$'000	18,979	20,687	32,160	33,002	38,682
Value of plant and machinery	$'000	20,613	23,196	30,688	34,864	47,304
Horse-power of engines ordinarily in use	hp	134,428	140,956	151,918	163.700	181,284

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Victorian and New South Wales factories produce about 90 per cent of the output of this industry.

TYRE RETREADING AND REPAIRING: AUSTRALIA(a), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		536	542	555	585	586
Number of persons employed		3,181	3,214	3,317	3,399	3,345
Salaries and wages paid	$'000	6,122	6,434	6,823	7,412	7,856
Value of power, fuel, etc., used	$'000	887	897	930	967	988
Value of materials used	$'000	13,784	14,505	15,903	18,107	18 579
Value of production	$'000	16,128	16,889	18,667	19,961	19.919
Total value of output	$'000	30,799	32,291	35,500	39,035	39,485
Value of land and buildings	$'000	14,771	16,721	18.434	19,319	20,114
Value of plant and machinery	$'000	5,536	5,359	5,844	6,344	6,890
Horse-power of engines ordinarily in use	hp	13,079	13,865	14,406	15,681	16,191

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

PLASTIC MOULDING AND PRODUCTS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		421	430	440	485	505
Number of persons employed		10,496	11,801	12,668	14,157	14,517
Salaries and wages paid	$'000	21,302	25,083	27,905	33,770	35,426
Value of power, fuel, etc., used	$'000	1,932	2,257	2,530	2,985	3,170
Value of materials used	$'000	48,520	57,598	63,489	75,722	76,957
Value of production	$'000	41,834	48,499	57,641	66,818	68,464
Total value of output	$'000	92,287	108,354	123,660	145,526	148,591
Value of land and buildings	$'000	20,111	23,321	25,485	29,954	34,174
Value of plant and machinery	$'000	21,210	25,397	28,965	32,843	36,559
Horse-power of engines ordinarily in use	hp	47,083	54,576	58,759	66,918	75,451

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

ELECTRIC LIGHT AND POWER WORKS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		285	275	269	258	253
Number of persons employed		12,441	12,272	12,162	12,457	12,600
Salaries and wages paid	$'000	31,832	32,007	33,235	36,283	38,879
Value of power, fuel, etc., used	$'000	83,361	81,642	85,708	88,590	94,151
Value of materials used	$'000	10,574	10,386	11,492	16,139	17,348
Value of production	$'000	157,069	179,113	194,019	206,233	220,237
Total value of output	$'000	251,003	271,141	291,219	310,962	331,736
Value of land and buildings	$'000	490,779	499,901	497,126	537,430	583,801
Value of plant and machinery	$'000	583,073	613,244	622,087	652,376	713,015
Generators installed—kilowatt capacity	'000kW	7,215	7,499	7,983	8,498	9,396

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

Further information on this subject is continued in the chapter Electric Power Generation and Distribution.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 1124.

GAS-WORKS: AUSTRALIA(*a*), 1961-62 TO 1965-66

		1961–62	1962–63	1963–64	1964–65	1965–66
Number of factories		85	87	87	89	87
Number of persons employed		3,674	3,561	3,449	3,272	3,055
Salaries and wages paid	$'000	9,260	9,288	9,157	9,200	9,325
Value of power, fuel, etc., used	$'000	6,156	5,710	5,627	5,538	5,186
Value of materials used	$'000	28,360	26,651	26,586	26,708	27,349
Value of production	$'000	28,108	31,740	33,289	35,018	34,089
Total value of output	$'000	62,624	64,100	65,502	67,263	66,624
Value of land and buildings	$'000	15,036	15,072	15,327	16,134	16,393
Value of plant and machinery	$'000	59,691	54,382	60,559	63,697	65,864
Horse-power of engines ordinarily in use	hp	52,037	58,989	56 803	58,702	59,127

(*a*) Prior to 1 July 1964 excludes Northern Territory and Australian Capital Territory.

CHAPTER 28

ELECTRIC POWER GENERATION AND DISTRIBUTION

This chapter is divided into three major parts: the Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; the Snowy Mountains Hydro-electric Scheme; and the origins, development, present situation and new projects of electrical systems in each Australian State and Territory.

The information contained in the chapter relates to situations existing and projects contemplated in December 1966, and may be considerably affected by changes in policy or plans, or by developments in the projects themselves.

INTRODUCTION

Distribution of population and location of power resources in Australia

The two principal centres of population and industry in Australia, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power, and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of Australia, materially influences the distribution of industrial population and the location of major electric power stations. By far the most important source of energy used in the production of electric power in Australia is coal. At 30 June 1966 thermal power equipment represented 72 per cent, hydro plant 25 per cent, and internal combustion equipment 3 per cent of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 13 per cent receiving an annual rainfall of 30 inches or over, and these areas are confined largely to Tasmania and to the narrow coastal strip along the east coast of the mainland. The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 4,000,000 kW by 1975. The two major construction projects in this area are the Snowy Mountains and Kiewa schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount available is smaller than the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent of the total Australian hydro-electric potential. On the mainland the chief source of energy is coal; in Tasmania it is water.

Electric power generation and distribution

At the beginning of this century Australia's electrical undertakings were carried on mainly by private enterprise, but with some measure of governmental control designed to provide standards of safety and to define the scope and obligations of the private organisations. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1961 all major generating stations supplying the public were, in varying degrees, under the control of statutory organisations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies. There are still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas it has been, and remains, the practice for central authorities to sell power in bulk to local distributing organisations which undertake reticulation.

In addition to the private, local government and statutory organisations which generate and/or distribute electricity for sale, numerous firms generate power for use in their own establishments, particularly those engaged in mining pursuits remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, as the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced. The measures taken by authorities to satisfy the demand created by the post-war growth in population and building and by developments in industry and commerce are described in the following pages.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME*

Snowy Mountains Hydro-electric Power Act 1949

In July 1949 the Commonwealth Government established the Snowy Mountains Hydro-electric Authority, and empowered it to generate electricity by means of hydro-electric works in the Snowy Mountains Area; supply electricity to the Commonwealth (i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and supply to a State, or to a State Authority, electricity not required for defence purposes or for consumption in the Australian Capital Territory.

The Authority is constituted by a Commissioner and two Associate Commissioners, the three appointments being made by the Governor-General. It is empowered to construct, maintain, operate, protect, manage and control works:

(*a*) for the collection, diversion and storage of water in the Snowy Mountains Area;

(*b*) for the generation of electricity in that area;

(*c*) for the transmission of the electricity generated;

(*d*) incidental or related to the construction, maintenance, operation, protection, management or control of any works otherwise specified in the Act.

The Snowy Mountains Act is supported by a detailed agreement between the States of New South Wales and Victoria and the Commonwealth with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Commonwealth, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

Snowy Mountains Hydro-electric Scheme

The Snowy Mountains area in south-eastern New South Wales is the only part of the continent in which altitudes exceed 7,000 feet and in which there is a substantial area over the altitude of 6,000 feet. The precipitation which results from the presence of this barrier on the line of the prevailing winter depressions of Antarctic origin amounts to as much as 150 inches a year in the vicinity of Mt Kosciusko, the highest point in Australia. The drainage from the snowfields is practically all to three systems—those of the Murray and Murrumbidgee Rivers, which flow inland, and that of the Snowy River, which flows southward to Bass Strait.

The broad basis of the Snowy scheme is to transfer waters, which would otherwise flow to the sea unharnessed, from the Snowy River and its tributaries to the inland system, so that the water may be used for irrigation and to provide power. It involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the scheme geographically into two sections, the Snowy-Tumut Development and the Snowy-Murray Development (*see* plate 18 of Year Book No. 52). For purposes of both power production and irrigation it is necessary to regulate run-off, and this will be achieved by the use of Lake Eucumbene (formed by the construction of Eucumbene Dam) and other smaller storages to control the waters of the Eucumbene, Murrumbidgee, Tooma, and Tumut Rivers of the Snowy-Tumut Development and of the Snowy and Geehi Rivers for the Snowy-Murray Development. A sectional diagram of the scheme appears on plate 19 of Year Book No. 52.

Snowy-Tumut Development. This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee, and Upper Tumut Rivers and their combined development through a series of power stations down the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene, which has an ultimate usable storage of 3.5 million acre feet. The waters of the Upper Murrumbidgee River are diverted into Lake Eucumbene by a dam at Tantangara and a 10½-mile tunnel from Tantangara Reservoir. From Lake Eucumbene the water flows through a 14-mile tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River, where it joins the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 9-mile tunnel. The 14-mile Eucumbene-Tumut Tunnel is used during periods of high flow to divert waters of the Tumut River from Happy Jacks Shaft or the combined waters of the Tumut and Tooma Rivers from Tumut Pond Reservoir back to Lake Eucumbene for storage.

From Tumut Pond Reservoir water is conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Talbingo Reservoir, also on the Tumut River.

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* *See also* the chapter Water Conservation and Irrigation of this issue and special detailed article in Year Book No. 42, pp. 1103–30.

Tumut 3 Power Station, the largest station of the scheme (capacity 1,500,000 kW, of which 500,000 kW will be provided by pump turbines) will be constructed below Talbingo Reservoir and will discharge into Jounama Pondage on the Tumut River. This pondage will provide a downstream pumping pool and also re-regulate discharges from Tumut 3 Power Station as required. Releases from Jounama Pondage will then enter Blowering Reservoir formed by Blowering Dam. This dam is under construction by the Snowy Mountains Authority as an agent for the State of New South Wales and will provide for the regulation of power station discharges for irrigation use in the Murrumbidgee Valley. The Authoritity is constructing a a power station at the foot of the dam to generate power from releases of water for irrigation purposes.

Snowy-Murray Development. The principal features of the Snowy-Murray Development are the diversion of the main stream of the Snowy River by tunnels, shafts, and pipelines westwards through the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray, and the development of power on the western slopes of the Alps. The main works of the development will be as follows.

(*a*) A tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River, and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, will have a combined capacity of 1,500,000 kW.

(*b*) A tunnel from a small dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water will be returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.

(*c*) A dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers; and the construction of a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy-Geehi Tunnel near Island Bend, where it will join the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

The power output of this section of the Scheme will be increased by the construction of subsidiary hydro-electric projects on the Upper Snowy River above Island Bend and on Windy Creek, a tributary of the Upper Geehi.

Utilisation of power from scheme

The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations, and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilise the potential of the Snowy Mountains Scheme most effectively, the order of development is being arranged so that the early stations operate, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeds and as the load increases in magnitude.

The Snowy Mountains Scheme is situated about midway between the principal load centres of Sydney and Melbourne and is connected to those cities by 330 kV transmission lines. It is, consequently, in a position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States. Although most of the output from the scheme will go to the States of New South Wales and Victoria, the Commonwealth Government has the right to draw from the scheme its requirements of power and energy for the Australian Capital Territory and for defence purposes. For convenience, the Commonwealth's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth and the Electricity Commission of New South Wales. Electricity over and above that required by the Commonwealth Government is divided between the States of New South Wales and Victoria in the ratio 2 : 1.

Progress of scheme and future programme

The scheme's first power station, Guthega, of 60,000 kW initial capacity, came into operation in February 1955. It was followed by Tumut 1, an underground power station with a capacity of 320,000 kW, in 1959, and by the 280,000 kW Tumut 2 underground Power Station in 1962. Eucumbene Dam, which provides the major regulating storage for the scheme, was completed in May 1958. Tumut Pond Dam, completed in September 1958, provides the balancing storage for the power stations of the Upper Tumut Works. The first trans-mountain diversion of water from Lake Eucumbene to the Tumut River at Tumut Pond was made possible when the 14-mile Eucumbene-Tumut Tunnel was completed in June 1959. The 10½-mile Murrumbidgee-Eucumbene Tunnel and the 9-mile Tooma-Tumut Tunnel came into operation early in 1961. Following the completion of the Upper Tumut Works, construction activity has been concentrated on the Snowy-Murray development. The first unit of this development, the Eucumbene-Snowy project which comprises Island Bend Dam and the 15-mile Eucumbene-Snowy Tunnel, commenced diverting Snowy River water to storage in Lake Eucumbene in August 1965. Completion of a 9-mile trans-mountain Snowy-Geehi Tunnel, the 7½-mile Murray 1 Pressure Tunnel, the first of the 1-mile long Pressure Pipelines, and the first two units of the 950,000 kW Murray 1 Power Station in April 1966 allowed the first diversion of the water from the Snowy River to the Murray River in the west. Two more of the ten turbo-generators have since been brought into commercial operation and the Murray 1 Project is planned for completion by the close of 1967. The total installed capacity of the scheme has now reached 1,040,000 kW.

Khancoban Dam, designed to regulate power station releases before their discharge into the Murray River, was completed in February 1966. Construction is proceeding on the Murray 2 Project in the base of the open cut excavated in the bank of Khancoban Reservoir downstream of Murray 1 Project. The four units of Murray 2 Power Station totalling 550,000 kW are scheduled to come into commercial operation in the first half of 1969.

Construction is also proceeding on the Jindabyne Project. The earth and rockfill dam is planned for completion by the close of 1967, and the pumping station and Jindabyne–Island Bend Tunnel will come into service by the end of 1968.

Blowering Dam on the Tumut River will also be in service towards the end of 1968, and the 80,000 kW Blowering Power Station, also under construction, will be ready for commercial operation by the summer of 1969 when the first of the stored water in the Blowering Reservoir will be released for the irrigation season downstream on the Murrumbidgee Irrigation Areas.

Work has begun on the Tumut 3 Project with the excavation of foundations for Jounama Dam. This earth and rockfill embankment will be sufficiently complete by winter of 1968 to allow the rising waters of the Blowering Reservoir to flood the Jounama Dam Site. The remaining sections of Tumut 3 Project are planned for completion by 1974.

STATES AND TERRITORIES

New South Wales

In Year Book No. 39 an account was given in some detail of the origin and development of electricity generation and distribution in New South Wales. At present the following three main Acts govern electricity supply in New South Wales.

The Local Government Act, 1919, which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.

The Electricity Development Act, 1945–1965, which established the Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.

The Electricity Commission Act, 1950–1965, which constituted the Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the Electricity Development Act.

Electricity Commission of New South Wales and other electricity supply authorities

The Commission, which is directly responsible to the Minister for Local Government, consists of five members, of whom one is full-time Chairman and one is full-time Vice-chairman. The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the Government railways and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except in the Snowy Mountains region.

The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities—municipal and shire councils, electricity county councils (consisting of groups of shire and/or municipal councils) or private franchise holders. At 30 June 1966 there were forty-six supply authorities throughout the State, of which twelve also generated part or all of their power requirements. Most of the small power stations which had operated in many country centres have closed down as the main transmission network has been extended.

Over recent years there has been a distinct trend towards the consolidation of supply areas on a district basis for electricity distribution purposes. Generally, these consolidations have taken the form of a county district consisting of a number of neighbouring shire and municipal and city areas grouped only for electricity supply purposes, and administered by a county council of representatives elected by the constituent councils. Of the 224 cities, municipalities and shires in New South Wales, 215 are included in one or other of the thirty-four electricity county districts. The majority of these county districts have been constituted since 1945. The largest of the county councils is the Sydney County Council, which at 30 June 1966 was supplying 546,707 consumers in the Sydney metropolitan area.

Electricity Authority of New South Wales

The Electricity Authority was constituted for the purpose of promoting and regulating the co-ordination, development, expansion, extension, and improvement of electricity supply throughout the State. A regulatory body, it consists of seven members of whom one is full-time Chairman. Like the Electricity Commission, it is responsible to the Minister for Local Government. The following are the main functions of the Authority.

Distribution. The approval of the Authority is required for the establishment or acquisition of an electricity trading undertaking by a local government council, for the granting or renewing by such a council of electricity franchise agreements or corresponding agreements with other councils, and for the giving or taking of bulk supplies of electricity. It also has power to formulate proposals for the establishment of county councils. In exercising these powers, the Authority is concerned mainly with seeing that distributing authorities are sufficiently strong to provide an economical, efficient and satisfactory service. Its most important activities in this regard are in investigating supply areas and in making recommendations to the Minister for the consolidation of such areas into county districts.

Rural electrification. The Authority administers the rural electricity subsidy scheme under which rural electrification throughout the State is progressing very rapidly (*see* pages 1166–7).

Safety. The Electricity Development Act, 1945–1965 contains provisions for the making of regulations relating to most aspects of safety, and these powers are being used more and more extensively. Safety regulations now in force cover such matters as inspection of consumers' installations, licensing of electricians and electrical contractors, approval of electrical appliances, safety of linesmen, and overhead line construction.

Generation and transmission. The approval of the Authority is required for the establishment or extension of power stations and main transmission lines (with the exception of those of the Electricity Commission).

Generation and transmission

Except in the Snowy Mountains district and in one or two other areas New South Wales is lacking in major water power potential, and for the generation of electricity the State is dependent mainly on steam power stations. During the year ended 30 June 1966, coal-fired power stations generated 89.7 per cent of the State's energy requirements, hydro-electric stations 9.8 per cent and internal combustion plants 0.5 per cent. Of the 9.8 per cent generated from hydro-electric stations approximately 80 per cent was from the Snowy Mountains Scheme. This proportion will increase with the expansion of that scheme, but it is not expected that more than 15 per cent to 20 per cent of the State's power needs will be supplied from this source. The coal-fired steam power stations (and possibly atomic power stations in the future) will therefore continue to supply the greater part of requirements.

Major generating stations. In New South Wales the generation of electricity has followed the general world trend towards large centralised power stations supplying large areas through interconnected transmission networks. Whereas until a few years ago the greater part of the coal-fired generating plant was located in the industrial areas of Sydney, Newcastle and Wollongong, where most of the population is also located, major power stations are now being located on the coalfields to the north, south and west of Sydney, and power is transmitted to the load centres through high voltage transmission lines.

At 30 June 1966 the major power stations of the State system of the Electricity Commission of New South Wales and their installed capacities were as follows: *Steam*—Vales Point (Lake Macquarie), 875,000 kW; Bunnerong (Sydney), 375,000 kW; Wangi (Lake Macquarie), 330,000 kW; Tallawarra (Lake Illawarra), 320,000 kW; Wallerawang (near Lithgow), 240,000 kW; Pyrmont (Sydney), 200,000 kW; White Bay (Sydney), 172,000 kW; Balmain (Sydney), 107,000 kW; Port Kembla, 60,500 kW; Zarra Street (Newcastle), 42,500 kW; Muswellbrook, 30,000 kW; Lithgow, 27,000 kW; Tamworth, 27,000 kW; Maitland, 20,000 kW; Penrith, 20,000 kW; Liverpool, 20,000 kW; *Hydro*—Hume (near Albury), 50,000 kW; Warragamba (near Penrith), 50,000 kW; Burrinjuck (near Yass), 20,000 kW. There were also various other steam, hydro and internal combustion stations aggregating 35,990 kW. The total installed capacity of the Electricity Commission's system was 3,021,990 kW. The greater part of the Commission's generating plant is concentrated within a hundred mile radius of Sydney—the largest stations outside this area being located at Hume, Muswellbrook and Tamworth.

Major transmission network. The retailing of electricity to 97 per cent of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 330 kV, 132 kV, 66 kV and some 33 kV and 22 kV transmission lines links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 400 miles inland.

At 30 June 1966 there were in service 934 route miles of 330 kV (including 143 miles operating for the time being at 132 kV) and 2,273 miles of 132 kV transmission lines (including 55 miles operating for the time being at 66 kV or lower). There were also in service 2,456 miles of transmission line of 66 kV and lower voltages. The installed transformer capacity at the Commission's 123 sub-stations was 10,102,750 kVA.

Separate systems and total State installed capacity. A number of small plants which supply isolated towns and villages have not yet been interconnected with the main network. Some local government bodies have undertaken the development of independent power stations. Of these, the more important are: the Northern Rivers County Council, which has constructed a steam power station at Koolkhan (near Grafton) with an installed capacity of 28,750 kW, and the North-West County Council, which has established a 15,000 kW steam power station on the Ashford coalfield. The aggregate installed capacity for the whole of the New South Wales systems and isolated plants was 3,189,975 kW at 30 June 1966 and the number of ultimate consumers at this date was 1,387,563.

Future development

The major new thermal stations already built and those now being developed on the coalfields will become the main base load supply sources for the State. Vales Point and Wangi, on Lake Macquarie, Wallerawang, near Lithgow, and Tallawarra, on Lake Illawarra, have been completed.

Construction of the Munmorah Power Station, located between Lakes Munmorah and Budgewoi (on the central coast) is in progress. The plant at Munmorah will comprise four 350,000 kW generating units, the first of which is programmed for commissioning in 1967, and the second, third and fourth units will follow at yearly intervals thereafter.

During the first half of 1965 work commenced on the Liddell Power Station project in the Hunter Valley, between Singleton and Muswellbrook. The designed capacity of Liddell is 2,000,000 kW, consisting of four 500,000 kW generating units, and is the biggest thermal power station yet planned in Australia. The first unit is scheduled for commissioning in 1971, and the second, third and fourth units in 1972, 1973 and 1974 respectively. The development of the 330 kV main system is continuing.

Recent work has included construction of a third circuit between the Vales Point-Munmorah area and Sydney, and between the Snowy Area and Yass. New work in hand includes the extension of 330 kV transmission to Tamworth and the construction of major 330 kV transmission centres at Tamworth, Newcastle, Canberra (A.C.T.), and later Armidale. Plans to augment the transmission system during the next five years provide for the construction of 537 route miles of 330 kV lines, 1,255 miles of 132 kV overhead lines, 35 miles of cables, and 25 new sub-stations.

Hydro-electricity

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area (*see* Snowy Mountains Hydro-electric Scheme, page 1162). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50,000 kW), Hume Dam (50,000 kW), Burrinjuck Dam (20,000 kW), and Keepit Dam (6,000 kW). The output of Warragamba Power Station depends upon the availability of water surplus to the requirements of the Sydney metropolitan area, and the output of the other stations on the release of water for irrigation. Of the remaining hydro installations, the largest is that of the New England County Council on the Oakey River, a tributary of the Macleay River, which has a capacity of 5,250 kW. The Northern Rivers County Council operates a hydro-electric power station on the Nymboida River, a tributary of the Clarence River. This station has a capacity of 4,500 kW. The Bega Valley County Council has constructed a hydro-electric scheme at Brown Mountain utilising the headwaters of the Bemboka River. This installation has a capacity of 3,950 kW. The Mullumbimby Municipal Council has in operation two hydro units with an effective rating of 140 kW each, on Wilson's Creek, a tributary of the Richmond River.

Rural electrification

When the Electricity Authority of New South Wales was constituted in 1946 less than one-quarter of New South Wales farms within reasonable reach of public electricity supply systems were being served with electricity. Under a subsidy scheme approved in August 1946, local electricity suppliers receive subsidies from the Electricity Authority towards the cost of new rural lines. The amount of subsidy is based on the estimated cost of the proposed extension and the number of consumers able to be served by the new lines. The scheme was designed to encourage local electricity supply authorities to construct the more economic extensions first by fixing a limit to the cost for which suppliers could be subsidised. Originally this limit was $500 per consumer when averaged over the cost of the whole extension, but the limit was raised to $800 in December 1953. Some subsidy was paid on higher cost extensions, but the excess over an average of $800 was not subsidised.

To assist supply authorities in extending supply to less populated, and thus high-cost, areas of the State the subsidy scheme was extended from May 1959 to provide for payment of increased subsidy in respect of extensions where the average capital cost per consumer lies within the range of $1,200–$1,600.

Between August 1946 and June 1966, applications for subsidy had been made by electricity suppliers to the Authority covering rural extensions costing $78 million to give supply to some 58,288 farming properties and 35,199 other rural consumers and involving 56,145 miles of line. The greater part of this work had been completed at 30 June 1966. At this date the Authority was committed to the payment of $32,437,388 in subsidies, of which $18,025,374 had been paid.

Victoria

In Year Book No. 39 a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

Constituted by the *Electricity Commissioners Act* 1918, the State Electricity Commission is a semi-governmental authority administered since 1921 by a full-time Chairman and three part-time Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose it is vested with power to erect, own and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, acquire and operate electricity undertakings, develop, own and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power, fuel and subsidiary undertakings, and all interest and other charges incurred in the service of its loans and other capital commitments.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material, and the testing and approval of electrical equipment and appliances. Incidental to its main operations, the Commission owns and operates the tramway systems in Ballarat and Bendigo. For the accommodation of its employees at Yallourn, the Commission owns and administers the town of Yallourn. It also owns large housing estates in the surrounding area, but is progressively selling houses in these estates to Commission employees. In the Kiewa hydro-electric works area it has built the two townships of Mount Beauty and Bogong, municipal administration of the former now being vested in the Shire of Bright. With construction at Kiewa now complete, many houses at Mount Beauty have been sold for holiday homes.

State Electricity Commission of Victoria

Since it began operating in 1919 the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State-wide basis to the point where its system now generates almost all the electricity produced in Victoria and serves 98 per cent of the population. Development of Victoria's electricity system is based on the utilisation for both power and fuel of Victoria's extensive brown coal resources in the Latrobe Valley in eastern Gippsland, with supplementary development of the hydro-electric potential of north-eastern Victoria. Victoria is entitled to one-third of the electricity from the Snowy Mountains Hydro-electric Scheme, after the Commonwealth has taken the power it needs for its purposes. Victoria also shares with New South Wales in the electricity generated at Hume Hydro Station on the River Murray. About 86 per cent of the State's electricity is generated from brown coal, either used in its raw state or manufactured into higher quality fuel in the form of brown coal briquettes. All the brown coal and briquette fuel is supplied by undertakings which the Commission itself owns and operates. Output of brown coal in 1965–66 from the three open cuts at Yallourn, Yallourn North and Morwell totalled 21,066,991 tons, of which 15,368,426 tons were used in the Commission's own power stations, and 5,274,829 tons were manufactured into 1,882,814 tons of brown coal briquettes, 33 per cent of the briquette output then being used for electricity production in metropolitan and provincial steam power stations. The two functions, generation of electricity and production of fuel, are closely integrated. Apart from the large proportion of brown coal and briquette fuel consumed in the power stations, the process of briquette manufacture results also in the generation of electricity, since the steam needed for processing the raw coal for briquetting is first used to operate turbo-generators.

Electricity supply

At 30 June 1966 the number of ultimate consumers in Victoria was 1,094,462. Of these, 1,086,879 were served by the State system and 7,583 by local country undertakings. The State system supplies all the Melbourne metropolitan area and over 2,200 other centres of population.

Complete electrification of the State is now within sight. By 30 June 1966 about 921,400 of the 934,000 homes in the State and 64,700 of Victoria's 72,300 farms were supplied with electricity. By 1968–69, allowing for extensions then in progress, only about 3,000 homes and fewer than 1,250 farms in remote areas will be out of reach of public electricity supply, but efforts will be continued to supply as many of these as possible.

The Commission sells electricity retail in all areas except part of the metropolitan area, where it sells in bulk to eleven municipal undertakings which operate as local retail supply authorities under franchises granted before the Commission was established. Bulk supply is also being provided at present to several New South Wales municipalities and irrigation settlements bordering the River Murray. The number of consumers served by the State system outside the Melbourne metropolitan area is 505,716. Of the new consumers connected to supply each year, more than two-thirds are outside the metropolitan area. New farm connections average nearly 3,500 a year.

The Commission's retail consumers numbered 876,462 at 30 June 1966. Retail supply is administered through the metropolitan branch and ten extra-metropolitan branches (Barwon, Eastern Metropolitan, Gippsland, Mallee, Midland, Mid-Western, North-Eastern, Northern, South-Western and Wimmera). At 30 June 1966 there were branch and district supply offices in Melbourne and 92 other cities and towns in Victoria.

Electricity production, transmission and distribution

Electricity generated in the State system or purchased by it totalled 10,281 million kWh in 1965–66, or more than 99 per cent of all Victoria's electricity for public supply. The system comprises a series of thermal and hydro-electric power stations. Inclusive of generator capacity both within the State and available to the Victorian system from outside the State, the total installed generator capacity at 30 June 1966 was 2,395,000 kW. Power stations are interconnected and feed electricity into a common pool for general supply. The major power station in this interconnected system is the brown coal burning power station at Yallourn, which alone generates over 40 per cent of Victoria's electricity. Other power stations in the interconnected system comprise two further base load brown coal burning power stations, Morwell and Hazelwood (which now has three of its planned eight 200,000 kW generating sets in service); steam stations in Melbourne (Newport, Richmond and Spencer Street), Geelong and Ballarat, and also at Red Cliffs, which has, in addition, some internal combustion plant; hydro-electric stations at Kiewa, at Eildon, on the Rubicon and Royston Rivers near Eildon, and at Cairn Curran; and an internal combustion station at Warrnambool. All within Victoria are Commission-owned, except Spencer Street Power Station, which remains the property of the Melbourne City Council, although operated as a unit in the interconnected system. A 330 kV transmission line links the Victorian system with the Snowy Mountains undertaking, and also provides facilities for interconnection between the Victorian and New South Wales State generating systems. Also linked with the Victorian interconnected system is the hydro station at Hume Dam on the River Murray. This power station is operated by the Electricity Commission of New South Wales. Output and operating costs are shared by Victoria and New South Wales. In meeting the total demand on the system, which fluctuates throughout the day and from month to month, each group of stations in the interconnected system is assigned a predetermined function dependent upon the availability of power from each group and the economics of generation. The various stations are utilised in the combination that will meet the system load most economically at a given time.

The electrical transmission and distribution system in the State supply network at 30 June 1966 comprised 49,708 miles of power-lines, 21 terminal receiving stations, 98 main transmission sub-stations, and nearly 47,000 distribution sub-stations. Main transmission is by 330 kV, 220 kV, 132 kV and 66 kV power lines which supply the principal distribution centres and also provide interconnection between the power stations. The 330 kV and 220 kV systems total 1,240 miles.

Future development

Major new construction is concentrated on the erection on the brown coal fields of the Latrobe Valley, of a large brown coal burning power station (Hazelwood), which is designed to operate on raw brown coal fuel supplied by belt conveyor direct from the Morwell open cut. Hazelwood Power Station is the largest project yet undertaken by the Commission and is designed to have a capacity of 1,600,000 kW in 1971. By that year the State's power resources, including Victoria's share of the output of the Snowy scheme, will have increased by 63 per cent to 3,894,000 kW. The first of Hazelwood's eight 200,000 kW turbo-generators was commissioned in October 1964, the second generating set went into service in 1965 and the third generating set in 1966. Five other 200,000 kW sets will follow at yearly intervals. Power generated at Hazelwood Power Station is transmitted at high voltage to Melbourne metropolitan terminal stations for distribution through the State supply network. To follow the Hazelwood project a new power station—to be known as Yallourn 'W'—will be built about half a mile west of the present Yallourn Power Station. It will also operate on brown coal which will be supplied by conveyors from Yallourn open cut. Yallourn 'W' will have two 350,000 kW turbo-generators, the first to be in service in 1972 and the second in 1973.

Local country electricity undertakings

At 30 June 1966 there were six independent electricity undertakings in country centres in Victoria generating and distributing their own local supply. Three of these undertakings were in the west and north-west of the State. Under the State Electricity Commission's rural electrification programme almost all the independent local country undertakings will ultimately be acquired and absorbed into the State system. For the year 1965–66 the total production of the independent undertakings was 31 million kWh. The number of consumers at 30 June 1966 was 7,583. The operation of the independent undertakings is governed by the *Electric Light and Power Act* 1958, which is administered by the State Electricity Commission.

Queensland

In Year Book No. 39 an account is given of the growth of electricity generation in Queensland, with particular reference to south-eastern Queensland, and of the events leading up to the establishment in 1937 of the State Electricity Commission of Queensland.

Electricity supply in Queensland is governed by the following Acts which are administered by the Commission.

'*The State Electricity Commission Acts*, 1937 *to* 1965.' These Acts constituted the Commission and define its powers, duties and responsibilities.

'*The Electric Light and Power Acts*, 1896 *to* 1965.' These Acts relate to the constitution of electric authorities, and define their powers, duties and responsibilities, and the conditions under which electricity is to be supplied and used, and also provide for the making of regulations governing safety and other matters.

'*The Regional Electric Authorities Acts*, 1945 *to* 1964.' These Acts provide for the constitution of Regional Electricity Boards representative of the Commission and the Local Authorities within each region, and define their powers and responsibilities.

'*The Southern Electric Authority of Queensland Acts*, 1952 *to* 1964.' These Acts established the Southern Electric Authority as a public authority and successor to the City Electric Light Co. Ltd., and define the powers and responsibilities of the Authority.

'*The Northern Electric Authority Acts*, 1963 *to* 1964'. These Acts established the Northern Electric Authority with responsibility for the generation and main transmission of electricity in north Queensland and for its sale in bulk to regional distributing authorities. They also define its powers and responsibilities.

'*The Electrical Workers and Contractors Acts*, 1962 *to* 1964.' These Acts deal with the execution of electrical works, the competency of electrical workers and the licensing of electrical contractors.

State Electricity Commission of Queensland

The Commission commenced to function in January 1938. Generally, the Commission is the statutory authority concerned, *inter alia*, with the administration of electricity supply legislation, the general control, organisation and efficient development of the electricity supply industry in Queensland, the forward planning of such development, the control of electricity charges, the administration of regulations and rules relating to safety, the raising of capital, the provision of engineering and consulting services, the promotion of the use of electricity, particularly in manufacturing and rural industries, and the fixing of standards. In addition, it is an authority to which consumers may appeal on matters in dispute between them and their electric authorities. The Commission is also empowered to own directly and operate generating stations and transmission lines and to sell electricity in bulk, but up to the present it has not been found necessary or desirable to implement this power.

Development and organisation

Following the 1939–1945 War, regional systems of electricity supply were established in and adjacent to the eastern coastal area, which is over 1,300 miles long. Five Regional Electricity Boards were established to replace the numerous individual electricity undertakings which had supplied only the larger centres of population. Under this system supply was delivered from central generating stations at or near the principal load centres. Each region comprised a homogeneous area, possessing relatively common interests, within which integrated transmission and distribution systems were established. Transmitted supply was taken to load centres previously served by relatively costly local generating stations, and a vigorous policy of rural electrification was pursued. In south-eastern Queensland regional electrification was undertaken by the Southern Electric Authority and the Dalby Town Council. The Brisbane City Council supplies the metropolitan area.

In the pastoral areas west of the Great Dividing Range supply had been provided by means of small diesel-operated generating stations run by local authorities. These independent units are fairly uniformly scattered throughout western Queensland and no town or village with more than fifty potential consumers is without electricity. With increasing consumption there has been a trend in this area for local generating stations to be superseded by transmitted supply from larger centres. From such transmission lines it has been possible to provide electricity to many otherwise isolated rural properties.

A further stage in the electrical development of Western Queensland was reached with the establishment during 1966 of the Central Western Regional Electricity Board with headquarters at Barcaldine. This Board's area of operations embraces eight shire councils. Its establishment will consolidate electricity supply in the area by the concentration of generation at Barcaldine and Longreach. Interconnection with the Capricornia Region will be implemented in the future when economically practicable.

Continued load growth led naturally to the interconnection of regional systems, and by this means the production of electricity was concentrated on the cheapest sources of power. The three northern Regional Electricity Boards (Cairns, Townsville and Mackay) were consolidated into one interconnected grid. In the south the supply systems of the Southern Electric Authority. the Brisbane City Council, the Wide Bay–Burnett Regional Electricity Board, and the Dalby Town Council also form an interconnected grid. The central Queensland network, which is operated by the Capricornia Regional Electricity Board, is not yet connected with either the northern or southern grids.

The natural sequel to the interconnection of regional supply systems has been the severance of the production and distribution functions. For the northern grid the Northern Electric Authority is responsible for the operation of generation and main transmission facilities, with the Cairns, Townsville and Mackay Regional Electricity Boards buying in bulk and acting as distributing authorities. In the south the Southern Electric Authority is responsible for generation and transmission, with the other authorities purchasing in bulk and performing the distribution function. However, the Southern Electric Authority also distributes over a large rural area surrounding Brisbane, and the Wide Bay-Burnett Board generates on a small scale. The Capricornia, Townsville and Cairns Boards operate a number of small isolated diesel generating stations.

All electricity undertakings in Queensland are now publicly owned, and with the exception of the Southern Electric Authority are controlled by representatives of local authorities within the areas concerned. Further interconnections and amalgamations within the electricity supply industry will be effected as soon as they will produce greater efficiency and lower costs to consumers. A major co-ordinating factor has been the inclusion of the Commissioner for Electricity Supply on the Boards of the Southern Electric Authority, the Northern Electric Authority and the five Regional Electricity Boards since their inception.

Electricity generation, transmission and distribution

Electricity generated in the State is based primarily on black coal, 84.5 per cent of the total production during 1965–66 being derived from this fuel. Hydro-electric stations, located mainly in north Queensland, provided 13.9 per cent, and the balance of the production, 1.6 per cent, was from internal combustion plants located mainly in western Queensland, utilising oil, wood, coal, or natural gas as fuel. Natural gas is the principal fuel used at the Roma power station. Electricity generated in Queensland in power stations in 1965–66 totalled 3,950 million kWh. At 30 June 1966 the major power stations within the State were as follows: *Steam*—Bulimba A (Brisbane), 92,500 kW; Bulimba B (Brisbane), 180,000 kW; New Farm (Brisbane), 75,000 kW; Tennyson A (Brisbane), 120,000 kW; Tennyson B (Brisbane), 120,000 kW; Swanbank A (Ipswich), 66,000 kW; Howard (near Maryborough), 37,500 kW; Rockhampton, 52,500 kW; Callide, 30,000 kW; Mackay, 12,250 kW; Townsville, 37,500 kW; *Hydro*—Kareeya (Tully Falls), 72,000 kW; Barron Gorge (near Cairns), 60,000 kW. The Mackay station also contains 3,000 kW of internal combustion plant. The Southern Electric Authority also operates two steam packaged plants each of 10,000 kW capacity. The total installed capacity of all Queensland generating stations was 1,086,180 kW, which comprised 919,750 kW of steam plant, 135,205 kW of hydro-electric plant and 31,225 kW of internal combustion plant.

The electrical transmission and distribution systems within the State comprised 36,650 circuit miles of electric lines at 30 June 1966. The main transmission voltages are 132 kV, 110 kV, 66 kV and in certain areas 33 kV. Extensive rural electrification has been undertaken by means of the single wire earth return system. At 30 June 1966 the total number of electricity consumers was 495,500, of whom 198,000 were in metropolitan Brisbane. The total number of farming properties supplied with electricity was approximately 26,500.

Future development

Major new construction is concentrated on the development of four new power stations sited on coalfields. These are at Swanbank (396,000 kW and 480,000 kW) on the West Moreton coalfield near Ipswich, Callide (120,000 kW) on the Callide open-cut coalfield near Biloela, and at Collinsville (120,000 kW) on the Collinsville coalfield. These stations will supply the southern, central and northern networks, respectively. Cooling water for the Callide station is provided from a multipurpose dam on Callide Creek which will also satisfy irrigation needs. A similar multipurpose dam on the Broken River will serve the Collinsville station. The water requirements of the Swanbank power station will be supplied from the Moogerah Dam. The Swanbank station will consist of six 66,000 kW generating sets, the first of which was commissioned in 1966. The remaining sets are scheduled for commissioning, one in late 1966, one in 1967, two in 1968 ,and one in 1969. The first stage of the Callied station consists of two 30,000 kW sets, the first of which was commissioned in June 1965. The second and third sets are scheduled for commissioning in 1967 and the final set in 1969. At Collinsville the first stage of two 30,000 kW sets is planned for commissioning in 1968, with the third and fourth sets scheduled for 1970 and 1971 respectively. In November 1965 Government approval was secured for the construction of a second thermal power station at Swanbank. This station has a planned capacity of 480,000 kW, and one 120,000 kW generating set will be commissioned annually from 1970 to 1973. In North Queensland, developments being considered include the further expansion of thermal generation at Collinsville and the further utilisation of the area's hydro-electric potential.

The electrical development in the west of Queensland is being assisted by the progressive extension westwards of the boundaries of the major regional electricity undertakings to include smaller western undertakings, bringing with it the advantages of incorporation within larger authorities, lower tariffs and greater financial and technical resources. Organisational changes involving amalgamation of isolated undertakings and their interconnection by transmission lines are being implemented as and when economic benefits to the consumers will result. In the extreme far west the isolated undertakings must inevitably continue to remain as such for the foreseeable future. New measures now proposed include the further westward extension of the areas of supply of the Townsville and Capricornia Regional Electricity Boards.

South Australia

An account of the companies generating electric power in South Australia prior to the establishment of the Adelaide Electric Supply Co. Ltd., and describing the development of that company's activities, was given in Year Book No. 39. Also included in the account was some reference to the early measures of public control over electricity supply in South Australia and the extent to which they were applied, and also to the inquiries into the activities of the Adelaide Electric Supply Co. Ltd., in 1932 and 1935. Following an inquiry instituted by the Government in 1943, relative to measures for increasing electricity supply to the metropolitan area and country districts, the Electricity Act, 1943 was passed, which, *inter alia*, established the South Australian Electricity Commission.

Electricity Trust of South Australia

In 1946 the assets of the Adelaide Electric Supply Co. Ltd. were transferred to a newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the Adelaide Electric Supply Company's Acts, 1897–1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other organisations which generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other organisations, and give or receive supplies of electricity in bulk.

Capacity and production

Three main categories of organisations generate electric power in South Australia, namely: (*a*) governmental, which include the Electricity Trust; (*b*) local authorities, e.g. municipal and district councils; and (*c*) other, including individuals and firms engaged primarily in generating power for sale, firms generating power primarily for their own use but supplying outside consumers, and firms generating power solely for their own use.

Of the total installed capacity in South Australia at 30 June 1966, the Electricity Trust operated plant with a capacity of 661,400 kW, and is the most important authority supplying electricity in the State. There were approximately 383,000 ultimate consumers of electricity in the State, of whom 364,000 were supplied directly and approximately 11,000 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne 'A' (60,000 kW), Osborne 'B' (240,000 kW), and Port Augusta Playford 'A' (90,000 kW) and Playford 'B' (240,000 kW). At Mt Gambier and Pt Lincoln the Trust operates steampower stations of 21,800 kW and 5,000 kW capacity respectively. The former burns either wood waste or fuel oil, while the latter burns fuel oil. In addition there is a diesel station at Pt Lincoln of 4,600 kW. Mt Gambier is connected with the metropolitan system by a 132 kV line. No hydro-electric potential exists in South Australia. Steam generating units comprise 98 per cent of installed capacity and the balance is internal combustion equipment.

Leigh Creek and other new capacity

Fairly extensive deposits of low grade sub-bituminous coal are obtainable at Leigh Creek, about 360 miles north of Adelaide. Under the Electricity Trust of South Australia Act, 1946, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and also for sale to other consumers. Production from the Leigh Creek field commenced in 1944, and in the year ended 30 June 1966, 1,974,357 tons of coal were produced, practically all of which was used by the electricity undertaking at the Port Augusta Playford Power Stations, which use Leigh Creek coal exclusively.

A large power station is to be constructed on Torrens Island near Adelaide, and four 120,000kW turbo-alternators and associated oil fired boilers have been ordered, the first to be commissioned early in 1967.

Western Australia

Since 1952 the State Electricity Commission of Western Australia has generated and distributed all electric current in the Perth metropolitan area, including Fremantle. Previously the Fremantle Municipal Tramways and Electric Lighting Board and other metropolitan municipal and road board supply authorities had purchased current in bulk from the Commission for distribution through their own system. For information on the early history of electricity supply in the metropolitan area, *see* Year Book No. 39, page 1189.

State Electricity Commission of Western Australia

The State Electricity Commission of Western Australia was established by the *State Electricity Commission Act, 1945*, and, as at present constituted, consists of nine members, including the Chairman, appointed by the Governor. Four of the Commissioners are representatives of consumers, one for the metropolitan area, two for the rest of the State and one representing commercial consumers. Of the remaining five, one is the Under Treasurer of the State or his deputy, one represents employees of the Commission and three are required to be qualified engineers.

The Commission is empowered to co-ordinate all State and other power undertakings in the State; to encourage and promote the use of electricity and other power, especially for industrial, manufacturing and rural purposes; and to carry out investigations to determine the safest, most economical and effective means for promoting, establishing, extending, and improving works for the generation, transmission, distribution, supply, and use of electricity or other power throughout the State. No person or organisation is permitted to construct or extend an electricity supply undertaking without consent from the Commission. Local authorities are empowered to operate and construct power stations and other works associated with the supply of electricity, provided that authority is first obtained from the Commission and that their proposals are not inconsistent with the Commission's plans.

General pattern of electricity supply

The State Electricity Commission gives central power station supply to the metropolitan area and an area of approximately 30,000 square miles defined in the report which formed a basis for the *South West State Power Scheme Act, 1945*, and an area extending eastward from Perth to Koolyanobbing. These areas include the more highly developed rural districts with a greater population density, which can more readily be connected to a central power station system. The policy of extending power supplies to rural consumers is continuing, and at 30 September 1966 some 6,780 rural consumers were connected. A similar scheme known as the Northern Areas State Power Scheme will be developed, and a depot has been established in the Geraldton area. The Commission purchases power in bulk to supply districts as far north as Northampton.

In the other areas of the State, towns are supplied by the local authority or by a concessionaire operating under an agreement with the local authority and the Commission. Power stations operated under these conditions are exclusively diesel of varying sizes.

The total number of consumers at 30 June 1966 was 217,174 of whom 198,302 were supplied by the Commission.

At the request of the Government, the Electricity Advisory Committee, in 1945, submitted a report which recommended, among other things, a national power scheme for the south-west. The plan provided for acquisition of the existing Collie Power Station and installation of additional generating capacity, construction of a power station at Bunbury and inter-connection of the south-west scheme with the metropolitan system. In 1946 the State Electricity Commission acquired the Collie Power Station, and since then it has acquired a number of electrical undertakings from municipal bodies and private organisations in the south-west area and is proceeding with arrangements for the purchase of others. In August 1951 the first portion of the South-West Power Scheme was officially opened at Collie, and most of the south-west towns as well as towns in the eastern wheat belt area as far east as Koolyanobbing have been connected by transmission line to the interconnected system. Statistics relating to activities of the interconnected system for the years 1964–65 and 1965–66 are shown in the following table.

		1964–65	1965–66
Plant capacity	kW	349,500	349,500
Maximum load	kW	320,000	363,000
Units generated	million kWh	1,215	1,371
Fuel used per unit (kWh) generated	lb.	1.47	1.46
Coal used	tons	686,928	795,032

In Kalgoorlie the large gold mines generate their own power requirements. The Kalgoorlie Town Council operates a 50-cycle diesel station to supply A.C. consumers in Kalgoorlie and Boulder. The D.C. stations of the Kalgoorlie and Boulder Town Council will continue to operate for some time at least.

New projects

Since its inception in 1946 the State Electricity Commission has made the provision of an adequate reserve of generating plant its primary object. With the commissioning of the first unit at South Fremantle Power Station in May 1951, the lag caused by shortages during the war and early post-war years was overcome. The system then developed rapidly to keep pace with the expansion of industry and housing. Generating plant has increased six-fold in the past twenty years. The four major power stations are interconnected with the South-West Power Station at Collie enabling the most economical units to be used as a base load station. Continuous development of the transmission and distribution system is being undertaken to keep pace with the growth in consumer demand, which is being maintained at a high level.

The first of the four turbo alternators to be installed at Muja Power Station (near Collie) was commissioned on 10 July 1965, and work on the other units is proceeding to schedule. One of these was ready for service in November 1966, another will be ready in 1967 and the fourth in 1968. In addition, contracts have been let for two 120,000 kW oil fired units for a new station to be built at Kwinana. It is expected that these units will be commissioned in 1970 and 1971.

Tasmania

A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at lower cost than elsewhere in Australia, or in most other countries. Another factor contributing to the low cost is that rainfall is distributed fairly evenly throughout the year with comparatively small yearly variations. The abundant and comparatively cheap supplies of electricity and other natural resources have attracted to Tasmania a number of important secondary industries, including large electro-chemical and metallurgical works with high load factor (in consequence of which the system load factor is also very high—70 per cent), for which energy costs constitute a large proportion of the total cost of production. The continuous power demand of these organisations when plant is in full operation aggregates 278,000 kW. For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, *see* Year Book No. 39, pages 1192–3.

Hydro-Electric Commission

In 1929 the Government passed the *Hydro-Electric Commission Act* 1929, which established the Hydro-Electric Commission and vested in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania, and authorised it to develop and reticulate electric power for all purposes. In 1930 this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department. For details of projects undertaken by the Commission prior to 1957 *see* Year Book No. 48, pp. 243–4, and earlier issues. Particulars of the Catagunya Power Development Scheme, begun in 1957 and completed in 1962, are contained in subsequent issues up to No. 51.

In the Great Lake Power Development the water of the Great Lake, by its diversion to the north-east in the direction of the most precipitous fall, is used to much greater advantage than previously through Shannon and Waddamana. Eventually reaching the South Esk River, it is used again through the machines of the Trevallyn Power Station. The works consist of an intake at the Great Lake, a four-mile headrace tunnel through the Western Tiers, one mile of high pressure pipeline on the face of the Tiers, a vertical shaft leading to the Poatina Power Station some 500 feet underground, a two-mile trailrace tunnel discharging into a canal, and then a channel to the Lake River, a tributary of the South Esk. In this development the power is generated by the fall of water through a vertical distance of 2,730 feet to the underground Poatina Power Station. Three 50,000 kW generators were in operation by mid-1964, a fourth in September 1964 and a fifth in February 1965. A sixth generator, to be installed at a later date, will bring the station's installed capacity to 300,000 kW. A further section of the scheme includes a dam at Arthur Lakes, from which water is pumped via conduit into the Great Lake, thus increasing the storage for use through the Poatina Power Station. The water from Arthur Lakes, as it falls to the Great Lake, is exploited in the small Tods Corner power station where one 1,600 kW generator is installed. With the commissioning of Poatina Power Station, Shannon Power Station was taken out of service in June 1964, and the original Waddamana 'A' Power Station was taken out of service in June 1965. Waddamana 'B' Station is being retained to provide peak load capacity and spare plant.

The total installed capacity of alternators in the various power stations throughout Tasmania in June 1966 was as follows:

	kW
Waddamana	48,000
Tarraleah	90,000
Butler's Gorge	12,200
Trevallyn	80,000
Tungatinah	125,000
Lake Echo	32,400
Liapootah	83,700
Wayatinah	38,250
Catagunya	48,000
Poatina	250,000
Total	**807,550**
King Island (diesel plant)	390

Approved construction will bring this total to approximately 1,240,000 kW by 1972. The number of ultimate consumers at 30 June 1966 was 134,679.

New capacity

The Hydro-Electric Commission is engaged on a construction programme which comprises the Lower Derwent Power Development and the Mersey-Forth Power Development. In the first-named a three-stage development is under construction below Catagunya on the River Derwent. With dams and associated power stations Repulse, Cluny and Meadowbank, completion of this project by 1967 will add a further 85,000 kW to the system, and it will also bring to an end the exploitation of the power potential of the River Derwent and its tributaries.

The Mersey-Forth Power Development is also under construction and is scheduled to be completed by 1972. In this development the Mersey River will be diverted westward to the Forth River by the construction of the Parangana Dam about half a mile below the junction of the Mersey and Fisher Rivers. Thence the flow will be conducted by a tunnel and penstock to Lemonthyme Power Station on the Forth River. The combined flow will be used for power generation at three power stations on the Forth River, situated at the foot of dams at Cethana, Devil's Gate and Paloona. The Wilmot River will be diverted to the east by a dam through a tunnel to a power station on the Forth River upstream from Cethana Dam. The diverted flow of the Wilmot River will also be used to produce power at Cethana, Devil's Gate and Paloona. A sixth power station will result from the development of the Fisher River, where a rapid fall from Lake Mackenzie on the plateau to the Mersey River enables a head of some 2,100 feet to be exploited. The principal storage in the development, Lake Rowallan, will be situated on the upper Mersey River at Walters Marsh, and Rowallan Power Station will exploit the water released from this storage. Smaller storages will be provided by Lake Mackenzie and by Parangana, Wilmot, Cethana, and Devil's Gate Dams. The six stages of the development are to be completed progressively between 1969 and 1972 and will add a total of 298,500 kW to the system.

The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present programme. Investigations are continuing into the very considerable resources as yet untouched, principally in the west and north-west of the State, and it is estimated that the potential which can be developed economically should ultimately harness 2,400,000 kW to the system.

Statistical Summary

The following table shows statistics for each State and Territory separately and for Australia for 1964–65 and 1965–66. Statistics of the electricity supply industry for the years 1961–62 to 1965–66 are given in the chapter Manufacturing Industry. Particulars of the Snowy Mountains scheme are included under New South Wales in the following table.

CENTRAL ELECTRIC STATIONS, STATES AND TERRITORIES

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
				1964–65					
Generating stations—									
Government . . no	25	13	..	9	10	12	5	..	74
Local authority . ,,	10	7	47	7	36	..	..	..	107
Companies . . ,,	14	9	1	11	39	3	..	..	77
Total stations . .	*49*	*29*	*48*	*27*	*85*	*15*	*5*	..	*258*
Installed capacity of generators—									
Steam . '000 kW	2,791	1,529	834	(*a*)	300	..	(*a*)	..	6,175
Hydro . ,,	801	335	135	..	2	819	..	..	2,092
Internal combustion ,,	78	22	27	(*a*)	79	1	(*a*)	..	231
Total capacity . .	*3,670*	*1,886*	*996*	*719*	*381*	*819*	*27*	...	*8,498*
Persons employed(*b*) no	4,116	3,674	1,637	(*a*)	1,015	(*a*)	64	..	12,457
Value of output(*c*) . $'000	122,501	82,280	43,790	(*a*)	21,105	(*a*)	2,055	..	310,962
Value of production(*d*) ,,	89,724	54,902	20,822	(*a*)	11,517	(*a*)	1,356	..	206,233
Electricity generated(*e*) million kWh	15,174	8,634	3,711	2,863	1,504	3,784	(*g*)	..	35,671
Ultimate consumers(*f*) no	1,339,499	1,057,314	475,972	367,243	210,097	131,593	6,641	25,090	3,613,449
				1965–66					
Generating stations—									
Government . no	26	13	..	12	12	11	5	..	79
Local authority . ,,	9	5	47	7	33	..	..	..	101
Companies . . ,,	14	4	1	11	40	3	..	..	73
Total stations . .	*49*	*22*	*48*	*30*	*85*	*14*	*5*	..	*253*
Installed capacity of generators—									
Steam . '000 kW	3,066	1,724	920	(*a*)	372	..	(*a*)	..	6,771
Hydro . ,,	1,086	335	135	..	2	819	..	..	2,377
Internal combustion ,,	78	23	31	(*a*)	86	1	(*a*)	..	248
Total capacity . .	*4,230*	*2,082*	*1,086*	*688*	*461*	*819*	*30*	..	*9,396*
Persons employed(*b*) no	4,008	3,883	1,709	(*a*)	1,082	(*a*)	65	..	12,600
Value of output(*c*) . $'000	132,243	89,797	46,643	(*a*)	23,065	(*a*)	2,016	..	331,736
Value of production(*d*) ,,	96,838	60,701	22,038	(*a*)	12,678	(*a*)	1,262	..	220,237
Electricity generated(*e*) million kWh	15,545	9,741	4,180	3,227	1,639	3,947	(*g*)	..	38,279
Ultimate consumers(*f*) no	1,387,563	1,094,462	495,500	383,000	217,174	134,679	7,278	28,271	3,747,927

(*a*) Not available for publication; included in the total for Australia. (*b*) Average employment in generating stations over whole year, including working proprietors. (*c*) Value, at generating station, of electricity produced plus certain earnings. (*d*) Value added in the process of generation. (*e*) Total generated including that generated by factories for their own use. The generation of electricity within each State takes no account of interchange of electricity between States. Furthermore, Victorian details exclude entitlements to generation from Hume Power Station and the Snowy Mountains Hydro-electric Scheme. (*f*) Approximate figures supplied by the electricity authority in each State. An 'ultimate consumer' is a person, business, undertaking, etc. that has contracted to receive electric power from a public or private organisation supplying this service. The number of ultimate consumers is not identical with the number of persons served with electricity because one ultimate consumer may represent three or four persons, e.g. in a household. (*g*) Not available. Excluded from Australian total.

Commonwealth Territories

The electricity supply undertakings at Canberra in he Australian Capital Territory and at Darwin, Katherine, Tennant Creek, and Alice Springs in the Northern Territory are operated by the Commonwealth Government.

Australian Capital Territory

The supply authority is the A.C.T. Electricity Authority, which took over the functions of the Canberra Electric Supply Branch, Department of the Interior, on 1 July 1963. Supply was first made available in Canberra during 1915 and was met from local steam plant. Connection to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Locally owned plant consists of 4,000 kW of diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1966 was 28,271. During the year 1965–66 the bulk electricity purchased was 328,140,000 kWh and the system maximum demand was 89,750 kW.

Northern Territory

At Darwin, supply was established by the Town Council in October 1934, but during April 1937 responsibility for generation and supply was transferred to the Northern Territory Administration. The power station is now equipped with turbo alternators with a total capacity of 15,000 kW. Tenders were let during 1964 and 1965 for two additional 1,500 kW turbo alternators and boilers for installation at Stokes Hill, Darwin, power station. In addition, diesel generating plant of approximately 6,500 kW is available. A 66 kV transmission system is used. At Alice Springs the power station is equipped with a diesel generating plant of 5,800 kW total capacity, with an additional 2,200 kW set being installed during 1966–67. At Katherine the power station is equipped with a diesel generating plant of 1,900 kW total capacity. The total number of ultimate consumers served in the Territory at 30 June 1966 was 7,278.

Papua and New Guinea

Papua and New Guinea Electricity Commission. Responsibility for the operation and establishment of the electrical undertakings in Papua and New Guinea is vested in the Papua and New Guinea Electricity Commission, whose headquarters are located at Port Moresby. The Commission came into operation on 1 July 1963, and assumed the functions and responsibilities previously vested in the Electrical Undertakings Branch of the Department of Public Works. The Commission, on its own behalf, operates the public supplies in the main centres of population and, on behalf of the Administration, operates the supply in the minor centres and patrol posts, hospitals, agricultural establishments, etc., where the supply cannot be considered to be a fully commercial supply. It has also regulatory functions associated with the licensing of electricians and contractors, the control of franchise holders and the approval of appliances and electrical materials for use in the Territory.

The generating capacity in the centres under the control of the Commission is as follows: Port Moresby—*diesel*, 4,470 kW, *hydro*, 5,500 kW; Rabaul—*diesel*, 3,000 kW; Lae—*diesel*, 2,640 kW with an additional 600 kW under construction; Madang—*diesel*, 1,620 kW; Wewak—*diesel* 1,355 kW; Goroka—*diesel*, 500 kW, *hydro*, 400 kW; Samarai—*diesel*, 300 kW, with an additional 150 kW under construction; Kavieng—*diesel*, 194 kW, with an additional 150 kW under construction; Kokopo—*diesel*, 80 kW. On behalf of the Administration, the Commission operates generating sets totalling some 5,300 kW distributed over 135 centres, with capacities between 5 and 150 kW. The townships of Wau and Bulolo are supplied by power generated by Placer Development Limited, which operates hydro-electric plant of 5,500 kW capacity. Power produced by this plant is used mainly in the plywood mill at Bulolo. The number of consumers served by the Commission at 30 June 1966 was 10,250. The consumers in minor centres approximated 4,000.

Future development. Following its policy of taking increasing advantage of the hydro-electric potential existing in the Territory, the Commission is proceeding with the construction of the No. 2 hydro-electric power station of the Laloki River Scheme. This station, planned to be commissioned in mid-1967, will have an initial capacity of 6,000 kW with an ultimate capacity of 30,000 kW.

Investigations have been completed on the proposed hydro-electric development of the Upper Ramu River, and recommendations have been submitted by the Administration to the Commonwealth Government. The recommendations include proposals for a station designed for an ultimate installed capacity of 72,000 kW for a regional supply to Lae, Madang, Kainantu, Goroka, and Mount Hagen. Some 400 miles of 66 kV and 132 kV transmission line will be required to bring power to the centres of consumption.

To meet the growing needs of the Territory pending the commissioning of power stations on the Laloki and Upper Ramu Rivers, the Commission has called tenders for the construction of 70 miles of 66,000 kV transmission line from Bulolo to Lae to take advantage of surplus power supplies from Placer Development Limited's hydro-electric plant, and continues its policy of installing skid mounted diesel generating sets in these centres to be served ultimately by hydro-electricity. These sets will be suitable for transfer to other growing centres at a later date. Three such sets of 500 kW capacity have been installed at Port Moresby, with a further two to be commissioned later in 1966.

Investigations are still continuing to locate a suitable source of hydro-electric power to supply the developing area along the Gazelle Peninsula of New Britain. The Wharongoi River, at present being investigated, seems to offer the best possibilities, but no firm proposal has as yet been put forward. Several small hydro-electric installations are in service or are in process of construction to serve isolated centres. These are—Aiyura Agricultural Station—30 kW; Mount Hagen—120 kW; Mendi (under construction)—200 kW; Tapini—30 kW. The Commonwealth Department of Works has a Stream Gauging Section and maintains records of many of the main rivers in order to provide material for future investigations into some of the major hydro-electric potential which exists in the Territory.

In 1950 the Commonwealth Government joined with the British Aluminium Co. Ltd. of London to form a company, New Guinea Resources Prospecting Co. Ltd., to locate and develop large capacity hydro-electric schemes in New Guinea (the Commonwealth Government later sold its interest). The company carried out very extensive investigations into the rivers of the Gulf of Papua and, in particular, into the Purari River.

CHAPTER 29

EMPLOYMENT AND UNEMPLOYMENT

Further detail on subjects dealt with in this chapter is contained in the *Labour Report* and other publications of this Bureau. For subjects relating to population censuses reference should be made to the series of mimeographed and printed publications listed in the chapter Miscellaneous of this Year Book. Detailed information on employment and unemployment and the Work Force Survey is contained in the monthly mimeographed bulletin *Employment and Unemployment*. Current information is also available in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Quarterly Summary of Australian Statistics*, and preliminary estimates of civilian employment are issued in a monthly statement *Wage and Salary Earners in Civilian Employment*.

THE WORK FORCE

The work force comprises two categories of persons: those who are employed and those who are unemployed. In the first category are included employers, self-employed persons, wage and salary earners, and unpaid helpers. Comprehensive details for each State and Territory and for Australia as a whole in respect of persons in the work force, classified according to characteristics such as age, sex, conjugal condition, industry, occupational status, and occupation, are obtained only at a general census of population. Quarterly estimates of the civilian work force are derived from the results of surveys of a sample of households selected by area sampling methods. Estimates are at present available only for the six State capital cities combined. A summary of the information about the work force that was obtained at the population census of June 1961 and earlier censuses is given on pages 1179–87. Estimates derived from the quarterly work force surveys appear on pages 1188 *et seq.*

Population censuses*

Occupational status

Occupational status of persons classified as in the work force at population census dates covers two broad groups; those at work and those not at work. The first group comprises employers, self-employed persons, employees (on wage or salary), and unpaid helpers. The category 'not at work' includes those who stated that they were usually engaged in work, but were not actively seeking a job at the time of the census by reason of sickness, accident, etc., or because they were on strike, changing jobs, or temporarily laid off, etc. It also includes persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the census. The numbers shown as 'not at work' in the following tables, therefore, do not represent the number of unemployed available for work and unable to obtain it.

The tables following show the occupational status of the population of Australia at the 1954 and 1961 censuses and of the States and Territories at the 1961 census.

OCCUPATIONAL STATUS OF THE POPULATION: AUSTRALIA, CENSUSES, 1954 AND 1961

Occupational status	Census, 30 June 1954			Census, 30 June 1961			Increase 1954–61
	Males	Females	Persons	Males	Females	Persons	
In work force—							
At work—							
Employer	220,878	30,104	250,982	224,369	42,712	267,081	16,099
Self-employed	359,617	51,583	411,200	350,111	62,704	412,815	1,615
Employee(*a*)	2,216,681	739,802	2,956,483	2,449,132	901,902	3,351,034	394,551
Helper(*b*)	18,430	9,913	28,343	13,689	7,871	21,560	−6,783
Total at work	2,815,606	831,402	3,647,008	3,037,301	1,015,189	4,052,490	405,482
Not at work(*c*)	41,014	14,000	55,014	128,626	43,980	172,606	117,592
Total in work force	*2,856,620*	*845,402*	*3,702,022*	*3,165,927*	*1,059,169*	*4,225,096*	*523,074*
Not in work force	1,689,498	3,595,010	5,284,508	2,146,325	4,136,765	6,283,090	998,582
Grand total	**4,546,118**	**4,440,412**	**8,986,530**	**5,312,252**	**5,195,934**	**10,508,186**	**1,521,65**

(*a*) On wage or salary. (*b*) Not on wage or salary. (*c*) *See* explanation above.
Minus sign (−) denotes decrease.

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* Particulars of full-blood Aborigines are not included in the tables in this section. *See* Appendix for results of *Constitution Alteration (Aboriginals)* 1967 Referendum; *see also* for results of 1966 census.

OCCUPATIONAL STATUS OF THE POPULATION: STATES AND TERRITORIES CENSUS, 30 JUNE 1961

Occupational status	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
In work force—									
At work—									
Employer .	95,651	73,103	43,469	24,213	20,521	8,221	897	1,006	267,081
Self-employed	138,571	120,867	67,806	40,978	29,784	13,191	723	895	412,815
Employee(*a*)	1,298,143	958,258	438,947	298,688	217,692	104,717	12,144	22,445	3,351,034
Helper(*b*) .	6,452	5,923	4,833	1,952	1,624	699	55	22	21,560
Total at work	1,538,817	1,158,151	555,055	365,831	269,621	126,828	13,819	24,368	4,052,490
Not at work(*c*)	63,699	51,912	29,941	11,730	10,163	4,090	424	647	172,606
Total in work force . .	*1,602,516*	*1,210,063*	*584,996*	*377,561*	*279,784*	*130,918*	*14,243*	*25,015*	*4,225,096*
Not in work force . .	2,314,497	1,720,050	933,832	591,779	456,845	219,422	12,852	33,813	6,283,090
Grand total .	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186

(*a*) On wage or salary. (*b*) Not on wage or salary. (*c*) *See* explanation on page 1179.

Particulars of males and females in the Australian work force classified by occupational status and industry are given on page 1183, and pages 407–10 of Year Book No. 50 contain tables showing males and females at the census of 30 June 1961, classified according to occupational status in conjunction with age and conjugal condition. This information may also be found in Labour Report No. 50, 1962 and 1963, pages 150–3.

Persons not at work

The total number of persons 'not at work' has been recorded only at the dates of the various censuses. Since the 1947 census this category has included all persons (usually engaged in industry, business, trade, profession, or service) who were out of a job and not at work at the time of the census for whatever reason, including any not normally associated with unemployment. The following table shows the numbers recorded as 'not at work' at the censuses of 30 June 1947, 1954 and 1961, classified according to cause. As explained on page 1179, the totals shown as 'not at work' do not represent the number of unemployed available for work and unable to obtain it.

PERSONS NOT AT WORK(*a*), BY CAUSE: AUSTRALIA CENSUSES, 1947, 1954 AND 1961

Census	Unable to secure employment	Temporarily laid off	Illness	Accident	Industrial dispute	Other (*b*)	Total
Males—							
1947 . .	17,314	12,458	14,639	2,985	475	18,743	66,614
1954 . .	9,912	4,423	11,879	2,804	344	11,652	41,014
1961 . .	83,945	11,930	13,684	6,152	540	12,375	128,626
Females—							
1947 . .	2,254	2,449	4,396	280	24	7,512	16,915
1954 . .	3,685	1,386	4,310	318	17	4,284	14,000
1961 . .	27,562	3,939	5,821	773	199	5,686	43,980
Persons—							
1947 . .	19,568	14,907	19,035	3,265	499	26,255	83,529
1954 . .	13,597	5,809	16,189	3,122	361	15,936	55,014
1961 . .	111,507	15,869	19,505	6,925	739	18,061	172,606

(*a*) Persons in the work force who were 'not at work' (*see* explanation on page 1179) at the time of the census. (*b*) The majority of these persons were resting between jobs or changing jobs.

Industry

For census purposes, industry may be defined as any single branch of productive activity, trade or service. All persons engaged in any such branch of economic activity are classified industrially as belonging to that particular branch, irrespective of their personal occupations within the industry. Thus a single firm may employ persons performing completely different occupations in order to make a particular product, or to render a particular service, but the industrial classification of each of these persons is determined by the nature of the product made or of the service rendered by the firm that employs him.

The following table shows the number of persons in the work force in each industry group and sub-group at the censuses of 1954 and 1961. The figures include those at work and those not at work.

INDUSTRY OF THE POPULATION: AUSTRALIA, CENSUSES, 1954 AND 1961

Industry group and sub-group	Census, 30 June 1954			Census, 30 June 1961			Increase or decrease (−) 1954–61
	Males	Females	Persons	Males	Females	Persons	
Primary production—							
Fishing	8,451	115	8,566	8,124	128	8,252	−314
Hunting and trapping	1,552	11	1,563	1,361	14	1,375	−188
Rural industries	435,933	31,890	467,823	396,519	38,892	435,411	−32,412
Forestry	15,279	67	15,346	13,725	122	13,847	−1,499
Total, primary production	*461,215*	*32,083*	*493,298*	*419,729*	*39,156*	*458,885*	*−34,413*
Mining and quarrying—							
Mining (including opencut mining)	55,327	909	56,236	46,220	1,174	47,394	−8,842
Quarrying	4,983	152	5,135	6,721	286	7,007	1,872
Total, mining and quarrying	*60,310*	*1,061*	*61,371*	*52,941*	*1,460*	*54,401*	*−6,970*
Manufacturing—							
Cement, bricks, glass, and stone	40,012	3,104	43,116	44.455	3,856	48,311	5,195
Products of petroleum and coal (excluding chemical and gas works)	3,234	190	3,424	6,239	430	6,669	3,245
Founding, engineering and metal-working	229,431	32,305	261,736	286,093	45,756	331,849	70,113
Ships, vehicles, parts, and accessories	132,653	6,463	139,116	132,435	8,345	140,780	1,664
Yarns, textiles and articles thereof (excluding clothing and furnishing drapery)	29,620	26,243	55.863	29,009	24,501	53,510	−2,353
Clothing and knitted goods (including needleworking)	23,144	73,367	96,511	20,285	69,382	89,667	−6,844
Boots, shoes and accessories (other than rubber)	17,123	10.228	27,351	15,252	10,011	25,263	−2,088
Food, drink and tobacco	117,088	27,927	145.015	121,983	31,911	153,894	8,879
Sawmilling and wood products (other than furniture)	53,252	2,136	55,388	49,759	2,452	52,211	−3,177
Furniture and fittings (other than metal), bedding and furnishing drapery	23,646	2,515	26,161	22,923	3,394	26,317	156
Paper and paper products, printing, bookbinding, and photography	53,953	18,770	72,723	67,443	22,994	90,437	17,714
Chemicals, dyes, explosives, paints and non-mineral oils	31,046	9,423	40,469	38,571	11,955	50,526	10,057
Jewellery, watchmaking, electroplating, and minting	6,491	1,275	7 766	6,098	1,163	7.261	−505
Skins and leather; goods of leather and leather substitutes (other than clothing or footwear)	9,044	2,903	11,947	6.931	2,632	9,563	−2,384
Rubber goods	14,912	3,354	18,266	18,076	3,828	21,904	3,638
Musical, surgical and scientific instruments and apparatus	4,301	1,291	5,592	5,894	2,414	8,308	2,716
Plastic products (n.e.i.)	4,211	1,842	6,053	7,072	3,443	10.515	4,462
Other	5,710	2,893	8,603	5,752	2,894	8,646	43
Undefined	1,397	834	2,231	2,857	1,847	4,704	2,473
Total, manufacturing	*800,268*	*227,063*	*1,027,331*	*887,127*	*253,208*	*1,140,335*	*113.004*
Electricity, gas, water, and sanitary services (production, supply and maintenance)—							
Gas and electricity	50,998	3,440	54,438	60,858	4,538	65,396	10,958
Water supply, sewerage, etc.	18,556	656	19,212	27,809	1,106	28,915	9,703
Total, electricity, etc. services	*69.554*	*4,096*	*73,650*	*88,667*	*5,644*	*94,311*	*20,661*
Building and construction—							
Construction and repair of buildings	196,205	2,452	198,657	229,280	5,237	234,517	35,860
Construction works (other than buildings)	125,624	1,341	126,965	135,812	2,002	137,814	10,849
Total, building and construction	*321,829*	*3,793*	*325,622*	*365,092*	*7,239*	*372,331*	*46,709*
Transport and storage—							
Road transport	91,515	4,349	95,864	104,948	7,166	112,114	16,250
Shipping	27,955	1,971	29,926	27,538	2,318	29,856	−70
Loading and discharging vessels	27,950	209	28,159	25,892	279	26,171	−1,988
Rail and air transport	91,691	8,031	99,722	91,166	8,349	99,515	−207
Storage	1,475	139	1,614	1,689	155	1,844	230
Total, transport and storage	*240,586*	*14,699*	*255,285*	*251,233*	*18,267*	*269,500*	*14,215*

INDUSTRY OF THE POPULATION
AUSTRALIA, CENSUSES, 1954 AND 1961—*continued*

Industry group and sub-group	Census, 30 June 1954			Census, 30 June 1961			Increase or decrease (−) 1954–61
	Males	Females	Persons	Males	Females	Persons	
Communication	63,802	16,748	80,550	75,294	18,522	93,816	13,266
Finance and property—							
Banking	30,746	12,159	42,905	38,564	20,600	59,164	16,259
Insurance	18.078	13,066	31,144	25,422	19,807	45,229	14,085
Other finance and property	12,664	7,500	20,164	22,288	14,464	36,752	16,588
Total, finance and property	*61,488*	*32,725*	*94,213*	*86,274*	*54,871*	*141,145*	*46,932*
Commerce—							
Wholesale trade	123,107	34,594	157,701	146,362	42,614	188,976	31,275
Livestock and primary produce dealing, etc.	25,701	5,387	31,088	29,121	6,449	35,570	4,482
Retail trade	238,660	149,932	388,592	276,234	185,986	462,220	73,628
Total, commerce	*387,468*	*189,913*	*577,381*	*451,717*	*235,049*	*686,766*	*109,385*
Public authority (n.e.i.) and defence services—							
Public authority activities (n.e.i.)	72,070	25,568	97,638	84,232	29,986	114,218	16,580
Defence: enlisted personnel	44,798	1,888	46,686	42,226	1,780	44,006	−2,680
Defence: civilian employees	9,972	2,215	12,187	9,361	2,168	11,529	−658
Total, public authority (n.e.i.), etc.	*126,840*	*29,671*	*156,511*	*135,819*	*33,934*	*169,753*	*13,242*
Community and business services (including professional)—							
Law, order and public safety	25,974	8,209	34,183	33,124	12,235	45,359	11,176
Religion and social welfare	12,830	9,821	22,651	15,033	12,610	27,643	4,992
Health, hospitals, etc.	35,504	75,888	111,392	43,047	106,522	149.569	38,177
Education	39,672	51,851	91,523	58,357	76,096	134,453	42,930
Other	22,532	12,556	35,088	32,665	20,444	53,109	18,021
Total, community and business services	*136,512*	*158,325*	*294,837*	*182,226*	*227,907*	*410,133*	*115,296*
Amusement, hotels and other accommodation, cafés, personal service, etc.—							
Amusement, sport and recreation	27,525	9,697	37,222	31,309	10,851	42,160	4,938
Private domestic service	6,703	30,763	37,466	5,773	26,919	32,692	−4,774
Hotels, boarding houses, etc., and restaurants	43,525	65.087	108,612	50,824	70,561	121,385	12,773
Other personal services	21,250	19,939	41,189	24,622	27,277	51,899	10,710
Total, amusement, hotels, etc.	*99,003*	*125.486*	*224,489*	*112,528*	*135,608*	*248,136*	*23,647*
Other industries	34	22	56	69	75	144	88
Industry inadequately described or not stated	27,711	9,717	37,428	57,211	28,229	85,440	48,012
Total in work force	*2,856,620*	*845,402*	*3,702,022*	*3,165,927*	*1,059,169*	*4,225,096*	*523,074*
Not in work force	1,689,498	3,595,010	5,284,508	2,146,325	4,136,765	6,283,090	998.582
Grand total	**4,546,118**	**4,440,412**	**8,986,530**	**5,312,252**	**5,195,934**	**10,508,186**	**1,521,656**

Details of individual industries within the foregoing sub-groups, by sex, are published for each State and Territory and for Australia as a whole in the mimeographed 1961 *Census Bulletin* No. 29 and in the respective parts of the census volumes.

Industry and occupational status

Males and females in the work force at the 1961 census are classified in the following table according to industry and occupational status. Only the major industry groups are shown in this table; particulars for each sub-group are available in the mimeographed 1961 *Census Bulletin* No. 34 and in the respective parts of the printed census volumes.

PERSONS IN THE WORK FORCE, BY INDUSTRY AND OCCUPATIONAL STATUS AUSTRALIA, CENSUS, 30 JUNE 1961

Industry group	At work					Not at work (c)	Total in the work force
	Employer	Self-employed	Employee (a)	Helper (b)	Total		
MALES							
Primary production	57,374	198,774	139,130	11,273	406,551	13,178	419,729
Mining and quarrying	566	1,441	49,214	43	51,264	1,677	52,941
Manufacturing	29,140	21,550	805,857	277	856,824	30,303	887,127
Electricity, gas, water, and sanitary services	320	281	87,301	5	87,907	760	88,667
Building and construction	29,611	31,071	282,216	197	343,095	21,997	365,092
Transport and storage	10,422	23,630	210,617	136	244,805	6,428	251,233
Communication	83	261	74,407	13	74,764	530	75,294
Finance and property	3,655	3,641	78,220	59	85,575	699	86,274
Commerce	54,477	44,261	341,343	715	440,796	10,921	451,717
Public authority (n.e.i.) and defence services	..	..	135,126	..	135,126	693	135,819
Community and business services (including professional)	19,945	7,243	153,354	208	180,750	1,476	182,226
Amusement, hotels and other accommodation, cafés, personal service, etc.	18,048	16,094	73,602	490	108,234	4,294	112,528
Other industries	7	19	38	1	65	4	69
Industry inadequately described or not stated	721	1,845	18,707	272	21,545	35,666	57,211
Total males in work force	224,369	350,111	2,449,132	13,689	3,037,301	128,626	3,165,927
FEMALES							
Primary production	9,552	18,599	7,650	3,023	38,824	332	39,156
Mining and quarrying	22	18	1,406	1	1,447	13	1,460
Manufacturing	4,367	3,674	233,682	359	242,082	11,126	253,208
Electricity, gas, water, and sanitary services	22	3	5,598	1	5,624	20	5,644
Building and construction	958	270	5,880	32	7,140	99	7,239
Transport and storage	865	630	16,573	40	18,108	159	18,267
Communication	32	152	18,063	20	18,267	255	18,522
Finance and property	324	434	53,713	47	54,518	353	54,871
Commerce	15,097	18,106	194,517	1,901	229,621	5,428	235,049
Public authority (n.e.i.) and defence services	..	..	33,700	..	33,700	234	33,934
Community and business services (including professional)	1,989	3,616	217,954	707	224,266	3,641	227,907
Amusement, hotels and other accommodation, cafés, personal service, etc.	9,256	16,790	102,479	1,547	130,072	5,536	135,608
Other industries	12	24	33	1	70	5	75
Industry inadequately described or not stated	216	388	10,654	192	11,450	16,779	28,229
Total females in work force	42,712	62,704	901,902	7,871	1,015,189	43,980	1,059,169

(*a*) On wage or salary. (*b*) Not on wage or salary. (*c*) *See* explanation on page 1179.

Married women in the work force

At the 1961 census 444,680 married women (including 39,148 women who were married but permanently separated, legally or otherwise) were recorded as being in the work force. This represented 42 per cent of the total number of females in the work force. At the 1954 census the corresponding percentage was 34.3. Between 1954 and 1961 there was an increase of 154,748 or 53.4 per cent in the number of married women in the work force compared with an increase of 213,767 or 25.3 per cent in total females in the work force. The largest increase (both numerical and proportional) in any age group was for married women aged 35–39 years, where the increase in the seven years 1954 to 1961 was almost 82 per cent.

MARRIED WOMEN IN THE WORK FORCE ACCORDING TO AGE: AUSTRALIA CENSUSES, 1954 AND 1961

Age last birthday (years)	Married women in the work force(*a*)		Increase, 1954–61	
	Census, 30 June 1954(*b*)	Census, 30 June 1961(*c*)	Number	Per cent
15–19	3,549	5,570	2,021	56.95
20–24	35,452	51,003	15,551	43.86
25–29	43,899	49,536	5,637	12.84
30–34	43,320	59,025	15,705	36.25
35–39	41,046	74,660	33,614	81.89
40–44	42,265	67,695	25,430	60.17
45–49	33,492	59,745	26,253	78.39
50–54	23,346	41,142	17,796	76.23
55–59	13,539	22,415	8,876	65.56
60–64	6,609	9,342	2,733	41.35
65 and over	3,415	4,547	1,132	33.15
Total	**289,932**	**444,680**	**154,748**	**53.37**

(*a*) Includes women married but permanently separated, legally or otherwise. (*b*) The figures shown for 1954 include an allowance for the number of women whose conjugal condition was not stated. (*c*) A conjugal condition was allocated prior to tabulation in all instances where this information was not stated.

Occupation

The working population may be classified according to distinct concepts—(i) the *occupation*, which is personal to the individual, and (ii) the *industry*, in which the individual carries on his occupation. Thus the *occupation* of a person is the kind of work that he or she personally performs, while *industry* is defined as any single branch of productive activity, trade or service. Particulars of the work force classified according to industry are given on pages 1181–3 of this section; pages 1185–7 contain particulars of the principal occupation groups (major and minor) of the work force at the census of 30 June 1961. Details of individual categories of occupations are published in the mimeographed 1961 *Census Bulletin* No. 32 and in the respective parts of the census volumes.

The following table shows, for Australia, the numbers of males, females and persons in the work force in each of the principal occupation groups at the 1961 census. Data of this type were last obtained at the 1947 census, but a comparison of the figures derived therefrom with those shown below is not possible because of differences in classification. Only those persons regarded as being in the work force are classified according to occupation. Corresponding details for persons in each State and Territory are given in Year Book No. 50, pages 415–16 and in *Labour Report* No. 50, 1962 and 1963, pages 158–9.

OCCUPATIONS OF THE POPULATION: AUSTRALIA, CENSUS, 30 JUNE 1961

Occupation group	Males	Females	Persons
Professional, technical and related workers—			
Architects, engineers and surveyors	29,526	155	29,681
Chemists, physicists, geologists and other physical scientists	7,759	585	8,344
Biologists, veterinarians, agronomists and related scientists	3,920	320	4,240
Medical practitioners and dentists	13,910	1,483	15,393
Nurses	3,866	59,955	63,821
Professional medical workers, n.e.c., and medical technicians	9,497	4,830	14,327
Teachers	44,601	56,722	101,323
Clergy and related members of religious orders	10,938	3,120	14,058
Law professionals	6,478	258	6,736
Artists, entertainers, writers and related workers	15,369	6,860	22,229
Draftsmen and technicians, n.e.c.	37,152	6,826	43,978
Other professional, technical and related workers	24,430	5,498	29,928
Total professional, etc., workers	*207,446*	*146,612*	*354,058*
Administrative, executive and managerial workers—			
Administrators and executive officials, government, n.e.c.	11,314	110	11,424
Employers, workers on own account, directors and managers, n.e.c.	243,230	43,228	286,458
Total administrative, etc., workers	*254,544*	*43,338*	*297,882*
Clerical workers—			
Book-keepers and cashiers	23,880	20,108	43,988
Stenographers and typists	. .	125,511	125,511
Other clerical workers	217,365	161,201	378,566
Total clerical workers	*241,245*	*306,820*	*548,065*
Sales workers—			
Insurance, real estate salesmen, saleswomen, auctioneers and valuers	11,494	657	12,151
Commercial travellers and manufacturers' agents	34,521	617	35,138
Proprietors and shopkeepers working on own account, n.e.c., retail and wholesale trade, salesmen, saleswomen, shop assistants and related workers	142,028	133,401	275,429
Total sales workers	*188,043*	*134,675*	*322,718*
Farmers, fishermen, hunters, timber getters and related workers—			
Farmers and farm managers	257,929	28,599	286,528
Farm workers, n.e.c.	149,792	8,212	158,004
Wool classers	2,949	. .	2,949
Hunters and trappers	1,504	4	1,508
Fishermen and related workers	7,452	72	7,524
Timber getters and other forestry workers	13,669	. .	13,669
Total farmers, etc.	*433,295*	*36,887*	*470,182*
Miners, quarrymen and related workers—			
Miners and quarrymen	30,434	15	30,449
Well drillers and related workers	1,060	. .	1,060
Mineral treaters	1,674	. .	1,674
Total miners, quarrymen, etc.	*33,168*	*15*	*33,183*
Workers in transport and communication occupations—			
Deck officers, engineer officers and pilots, ship	4,253	13	4,266
Deck and engine room hands, ship; barge crews and boatmen	11,633	. .	11,633
Aircraft pilots, navigators and flight engineers	1,750	6	1,756
Drivers and firemen, railway	14,391	. .	14,391

OCCUPATIONS OF THE POPULATION: AUSTRALIA
CENSUS, 30 JUNE 1961—*continued*

Occupation group	Males	Females	Persons
Drivers, road transport	146,320	528	146,848
Guards and conductors, railway	4,215	. .	4,215
Inspectors, supervisors, traffic controllers and despatchers, transport	20,781	892	21,673
Telephone, telegraph and related telecommunication operators	3,050	19,508	22,558
Postmasters, postmistresses, postmen and messengers	23,717	3,236	26,953
Workers in transport and communication occupations, n.e.c.	13,673	1,653	15,326
Total workers in transport, etc. . . .	*243,783*	*25,836*	*269,619*
Craftsmen, production-process workers and labourers, n.e.c.—			
Spinners, weavers, knitters, dyers and related workers	16,534	21,210	37,744
Tailors, cutters, furriers and related workers . .	18,149	64,722	82,871
Leather cutters, lasters and sewers (except gloves and garments) and related workers	15,147	9,962	25,109
Furnacemen, rollers, drawers, moulders and related metal making and treating workers . . .	20,774	. .	20,774
Precision instrument makers, watchmakers, jewellers and related workers	11,493	767	12,260
Toolmakers, machinists, plumbers, welders, platers and related workers	319,163	5,281	324,444
Electricians and related electric and electronic workers	104,474	1,262	105,736
Metal makers, metal workers and electrical production-process workers, n.e.c.	51,148	16,660	67,808
Carpenters, joiners, cabinetmakers and related workers	137,318	1,356	138,674
Painters and decorators	46,555	394	46,949
Bricklayers, plasterers and construction workers, n.e.c.	92,184	. .	92,184
Compositors, pressmen, engravers, bookbinders and related workers	30,994	6,759	37,753
Potters, kilnmen, glass and clay formers and related workers	10,489	1,261	11,750
Millers, bakers, brewmasters and related food and beverage workers	80,744	12,652	93,396
Chemical and related process workers	16,313	3,430	19,743
Tobacco preparers and tobacco product makers .	1,147	1,472	2,619
Craftsmen and production-process workers, n.e.c. .	26,939	11,794	38,733
Packers, labellers and related workers . . .	7,238	14,734	21,972
Stationary engine, excavating, lifting equipment operators and related workers	55,718	. .	55,718
Waterside workers and related freight handlers .	93,376	1,398	94,774
Labourers, n.e.c.	203,048	. .	203,048
Total craftsmen, etc.	*1,358,945*	*175,114*	*1,534,059*
Service, sport and recreation workers—			
Fire brigade men, policemen, policewomen, protective service and related workers . . .	31,617	473	32,090
Housekeepers, cooks, maids and related workers .	17,770	87,675	105,445
Waiters, waitresses, bartenders	13,701	22,224	35,925
Building caretakers, cleaners	26,127	19,169	45,296
Barbers, hairdressers, beauticians and related workers	9,291	13,355	22,646
Launderers, dry cleaners and pressers . . .	6,992	11,304	18,296
Athletes, sportsmen and related workers . .	3,215	199	3,414
Photographers and related camera operators . .	2,981	680	3,661
Embalmers and undertakers	736	. .	736
Service, sport, recreation workers, n.e.c. . .	18,083	12,108	30,191
Total service, etc., workers	*130,513*	*167,187*	*297,700*

OCCUPATIONS OF THE POPULATION: AUSTRALIA CENSUS, 30 JUNE 1961—*continued*

Occupation group	Males	Females	Persons
Members of armed services, enlisted personnel	42,226	1,780	44,006
Occupation inadequately described or not stated	32,719	20,905	53,624
Total in work force	*3,165,927*	*1,059,169*	*4,225,096*
Not in work force	2,146,325	4,136,765	6,283,090
Grand total	**5,312,252**	**5,195,934**	**10,508,186**

PROPORTION OF THE WORK FORCE IN EACH OCCUPATION GROUP AUSTRALIA, CENSUS, 30 JUNE 1961

Major occupation group	Proportion of total (per cent)		
	Males	Females	Persons
Professional, technical and related workers	6.6	13.8	8.4
Administrative, executive and managerial workers	8.1	4.1	7.1
Clerical workers	7.6	29.0	13.0
Sales workers	5.9	12.7	7.6
Farmers, fishermen, hunters, timber getters and related workers	13.7	3.5	11.1
Miners, quarrymen and related workers	1.1	..	0.8
Workers in transport and communication occupations	7.7	2.4	6.4
Craftsmen, production-process workers and labourers, n.e.c.	42.9	16.5	36.3
Service, sport and recreation workers	4.1	15.8	7.0
Members of armed services, enlisted personnel	1.3	0.2	1.0
Occupation inadequately described or not stated	1.0	2.0	1.3
Total in work force	**100.0**	**100.0**	**100.0**

The work force survey: six State capital cities

The estimates of the civilian work force contained in this section are based on the result of surveys of a sample of households selected by area sampling methods in the six Australian State capital cities. The boundaries of the capital cities are those defined for the population census of June 1961.

Surveys have been conducted quarterly in February, May, August, and November of each year since November 1960. Carefully selected and specially trained interviewers obtained the required information at about 19,500 households over a four-week period in each quarter. Each person included in the survey is assigned to a work force or not in the work force category on the basis of his actual activity during a specified week, his activity during that week being determined from answers to a set of questions specially designed for the purpose.

The enumeration includes all persons, 15 years of age and over, living in selected households, with the exception of members of the permanent armed forces, national servicemen enlisted in the Regular Army Supplement, and certain diplomatic personnel customarily excluded from the census and estimated populations. To take account of changes in the school leaving age, and to bring the work force survey definitions into conformity with those adopted at the 1966 population census, the scope of the survey was restricted, as from August 1966, to civilians aged 15 years and over. Previous surveys included persons aged 14 years, and in some of the tables which follow these persons have been included.

The principal categories in the following tables are the employed and the unemployed, which together constitute the total work force, and the remainder, comprising persons who are not in the work force. Details of these categories are as follows.

(*a*) *Employed persons* comprise all those who, during the specified week, worked for pay, profit, or payment in kind, in a job or business, or on a farm, and those who had a job, business, or farm, but were temporarily absent for the whole of the specified week for reasons other than lack of work. Persons who worked fifteen hours or more without pay in a family business (or on a farm) owned and operated by a member of the same household are included. The category includes employees, employers and self-employed persons.

(*b*) *Unemployed persons* comprise all those who, during the specified week, did no work at all, did not have a job or business, and were actively looking for work. The category also includes persons absent from work for the whole of the specified week without pay because of lack of demand for their services (i.e. those laid off without pay for the whole of the specified week).

(*c*) *The work force* consists of all persons who, during the specified week, were employed or unemployed in terms of the classifications given in (*a*) and (*b*) above.

(*d*) *Persons not in the work force* are those who, during the specified week, were not classified as employed or unemployed in terms of the classifications given in (*a*) and (*b*) above.

The foregoing work force classification conforms closely to that recommended by the Eighth International Conference of Labour Statisticians, held in Geneva in 1954. This international classification was not adopted for population censuses prior to the census of 1966, and consequently the figures in the tables which follow are not strictly comparable with those in the preceding section of this chapter.

Since the survey estimates are based on a sample they are subject to sampling variability, that is, variations that might occur by chance because only a sample of the population is enumerated. Further information on variability of survey estimates is available on request.

The figures given in the following tables may be revised as a consequence of revisions to estimated populations since the 1961 census in the light of results from the population census of June 1966.

Occupational status

The following table shows, for November in each of the years 1962 to 1966, the number of persons in the civilian population aged fifteen years and over in the six State capital cities, and the numbers in the work force and not in the work force.

CIVILIAN POPULATION AGED 15 YEARS AND OVER: OCCUPATIONAL STATUS, BY SEX, NOVEMBER 1962 TO 1966

SIX AUSTRALIAN STATE CAPITAL CITIES

('000)

November—	In the work force			Not in the work force	Total population
	Employed (*a*)	Un-employed	Total		
Males—					
1962	1,725.0	23.1	1,748.0	342.3	2,090.4
1963	1,758.3	17.9	1,776.2	364.4	2,140.6
1964	1,801.9	12.8	1,814.7	377.2	2,192.0
1965	1,849.1	18.4	1,867.5	382.3	2,249.8
1966	1,888.0	21.5	1,909.4	388.0	2,297.4
Females—					
1962	785.7	16.8	802.7	1,423.6	2,226.3
1963	805.5	11.3	816.8	1,464.0	2,280.8
1964	834.7	13.6	848.3	1,489.9	2,338.2
1965	886.7	17.0	903.7	1,492.7	2,396.4
1966	940.7	17.2	957.9	1,495.7	2,453.6
Persons—					
1962	2,510.8	39.9	2,550.6	1,765.9	4,316.6
1963	2,563.8	29.2	2,593.0	1,828.4	4,421.4
1964	2,636.6	26.4	2,663.0	1,867.1	4,530.1
1965	2,735.8	35.4	2,771.2	1,875.0	4,646.2
1966	2,828.7	38.6	2,867.3	1,883.7	4,751.0

(*a*) Includes employees, employers, self-employed persons, and unpaid family helpers.

Occupational status and age

The following table shows the civilian population aged fifteen years and over in the six State capital cities at November in each of the years 1962 to 1966, classified according to occupational status and age.

CIVILIAN POPULATION AGED 15 YEARS AND OVER: OCCUPATIONAL STATUS BY AGE AND SEX, NOVEMBER 1962 TO 1966

Six Australian State Capital Cities

('000)

Age group (years)	In the work force						Not in the work force		Total population	
	Employed(*a*)		Unemployed		Total					
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
November 1962—										
15–19	137.9	149.6	6.0	5.2	143.9	154.8	88.2	78.8	232.1	233.6
20–44	984.1	428.7	8.6	8.7	992.6	437.4	34.6	578.3	1,027.2	1,015.7
45–64	552.9	192.1	7.7	*	560.6	195.1	50.6	449.1	611.2	644.2
65 and over	50.1	15.3	*	*	50.9	15.3	168.9	317.4	219.8	332.7
Total	*1,725.0*	*785.7*	*23.1*	*16.8*	*1,748.0*	*802.7*	*342.3*	*1,423.6*	*2,090.4*	*2,226.3*
November 1963—										
15–19	155.8	162.0	*	*	160.1	166.0	98.9	93.3	259.0	259.3
20–44	992.0	437.4	7.5	5.7	999.6	443.1	36.3	582.7	1,035.8	1,025.8
45–64	567.0	192.3	5.2	*	572.2	194.0	51.6	461.3	623.8	655.2
65 and over	43.5	13.7	*	..	44.4	13.7	177.7	326.7	222.2	340.4
Total	*1,758.3*	*805.5*	*17.9*	*11.3*	*1,776.2*	*816.8*	*364.4*	*1,464.0*	*2,140.6*	*2,280.8*
November 1964—										
15–19	163.8	175.2	*	*	166.9	179.7	110.2	97.2	277.1	276.9
20–44	1,014.0	450.1	6.0	7.2	1,020.0	457.3	36.1	587.2	1,056.2	1,044.5
45–64	574.8	197.0	*	*	578.1	198.8	57.4	470.5	635.6	669.4
65 and over	49.3	12.2	*	*	49.7	12.3	173.4	335.1	223.1	347.4
Total	*1,801.9*	*834.7*	*12.8*	*13.6*	*1,814.7*	*848.3*	*377.2*	*1,489.9*	*2,192.0*	*2,338.2*
November 1965—										
15–19	173.0	176.5	6.9	6.7	179.9	183.2	108.8	105.0	288.7	288.1
20–44	1,037.2	480.2	7.4	8.2	1,044.6	488.3	40.7	582.2	1,085.4	1,070.5
45–64	589.8	217.0	*	*	592.9	219.1	55.2	463.3	648.2	682.4
65 and over	49.1	13.1	*	..	50.1	13.1	177.5	342.3	227.6	355.4
Total	*1,849.1*	*886.7*	*18.4*	*17.0*	*1,867.5*	*903.7*	*382.3*	*1,492.7*	*2,249.8*	*2,396.4*
November 1966—										
15–19	174.9	184.6	6.3	6.5	181.2	191.2	115.5	106.2	296.7	297.4
20–44	1,048.9	512.3	10.0	7.9	1,058.9	520.0	42.7	567.8	1,101.6	1,087.9
45–64	611.9	228.9	*	*	616.5	231.5	50.1	471.5	666.6	703.0
65 and over	52.3	14.9	*	*	52.9	15.0	179.6	350.3	232.5	365.3
Total	*1,888.0*	*940.7*	*21.5*	*17.2*	*1,909.4*	*957.9*	*388.0*	*1,495.7*	*2,297.4*	*2,453.6*

(*a*) Includes employees, employers, self-employed persons, and unpaid family helpers.

* Estimates of less than 5,000 are not published in the table because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived from the table by deduction, undue significance should not be attached to them.

Work force participation and unemployment rates

The next table shows work force participation rates and unemployment rates by marital status for the civilian population aged fifteen years and over in the six State capital cities at November in each of the years 1962 to 1966.

CIVILIAN POPULATION AGED 15 YEARS AND OVER: WORK FORCE PARTICIPATION AND UNEMPLOYMENT RATES, BY MARITAL STATUS AND SEX, NOVEMBER 1962 TO 1966

SIX AUSTRALIAN STATE CAPITAL CITIES

(Per cent)

November—	Work force participation rate(*a*)				Unemployment rate(*b*)			
	Males		Females		Males		Females	
	Married	Not married (*c*)	Married	Not married (*c*)	Married	Not married (*c*)	Married	Not married (*c*)
1962	88.8	73.1	27.7	50.7	0.8	2.6	1.9	2.3
1963	88.4	72.0	27.3	50.7	0.6	1.9	1.1	1.7
1964	88.7	71.3	28.5	49.5	0.4	1.4	1.6	1.6
1965	89.1	71.5	30.4	49.8	0.6	2.0	1.8	2.0
1966	89.3	70.9	32.3	50.2	0.7	2.3	1.5	2.1

(*a*) The civilian work force as a percentage of the civilian population aged 15 years and over. (*b*) The number unemployed as a percentage of the civilian work force. (*c*) Includes never married, widowed and divorced.

Unemployment in industry groups

The following table shows the unemployment rate in each industry group for the six State capital cities at November in each of the years 1962 to 1966. The total work force for a particular industry group comprises persons currently employed in the industry group and those unemployed persons whose last employment was in the group. The unemployment rates given in the table are the numbers unemployed in the industry groups expressed as percentages of the total work force in those groups. Because unemployed persons with no previous employment experience are excluded from the calculations used for this table, the unemployment rate shown for 'All industries combined' differs from the unemployment rate for the civilian work force as a whole.

CIVILIAN POPULATION: UNEMPLOYMENT RATES(*a*), BY INDUSTRY GROUP, NOVEMBER 1962 TO 1966

SIX AUSTRALIAN STATE CAPITAL CITIES

(Per cent)

Industry group in which last employed	November—				
	1962 (*b*)	1963 (*b*)	1964 (*b*)	1965 (*b*)	1966 (*c*)
Manufacturing	1.3	0.9	0.8	0.9	1.1
Building and construction	1.1	1.2	0.5	1.2	1.0
Transport and communication	0.9	0.8	0.5	0.7	0.9
Commerce	1.4	0.9	0.9	1.3	1.1
Public authority (n.e.i.) and community and business services	0.7	0.7	0.7	0.7	0.8
Amusement, hotels, cafés, personal service, etc.	2.3	1.4	1.7	1.2	1.3
Other industries	1.8	1.3	1.0	1.0	1.0
All industries combined(*d*)	1.3	1.0	0.8	1.0	1.0

(*a*) The numbers unemployed in the industry groups as percentages of the total work force in those groups. (*b*) Persons aged 14 years and over. (*c*) Persons aged 15 years and over. (*d*) Excludes unemployed persons who had not previously been employed.

The next table shows, for the six State capital cities at November in each of the years 1962 to 1966, the unemployed in each industry group as a percentage of the total unemployed civilians aged fourteen years and over (fifteen years and over for November 1966).

CIVILIAN POPULATION: DISTRIBUTION OF UNEMPLOYED BY INDUSTRY GROUP, NOVEMBER 1962 TO 1966

SIX AUSTRALIAN STATE CAPITAL CITIES

(Per cent)

Industry group in which last employed	November—				
	1962 (*a*)	1963 (*a*)	1964 (*a*)	1965 (*a*)	1966 (*b*)
Manufacturing	27.8	27.7	28.6	24.0	27.0
Building and construction	4.7	7.7	4.0	6.9	5.3
Transport and communication	4.3	5.2	4.1	4.1	5.4
Commerce	16.4	15.3	17.1	18.7	15.6
Public authority (n.e.i.) and community and business services	7.1	9.6	11.2	8.7	10.6
Amusement, hotels, cafés, personal service, etc.	9.5	8.6	11.0	5.9	6.5
Other industries	8.5	8.5	7.5	6.1	5.9
All unemployed persons who had previously been employed	*78.3*	*82.6*	*83.5*	*74.4*	*76.3*
Unemployed persons who had not previously been employed(*c*)	21.7	17.4	16.5	25.6	23.7
Total unemployed persons	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Persons aged 14 years and over. (*b*) Persons aged 15 years and over. (*c*) Comprises mainly school-leavers seeking work for the first time.

Duration of unemployment

The following table shows, for the six State capital cities at November in each of the years 1962 to 1966, the unemployed, classified by duration of unemployment, as a percentage of the total unemployed civilians aged fourteen years and over (fifteen years and over for November 1966).

CIVILIAN POPULATION: DISTRIBUTION OF UNEMPLOYED BY SEX AND DURATION OF UNEMPLOYMENT, NOVEMBER 1962 TO 1966

SIX AUSTRALIAN STATE CAPITAL CITIES

(Per cent)

Period of unemployment	November—				
	1962 (*a*)	1963 (*a*)	1964 (*a*)	1965 (*a*)	1966 (*b*)
Males—					
Less than one month	44.5	60.6	62.0	69.3	65.4
One month and less than three months	26.0	17.9	21.2	19.1	11.3
Three months and over	29.5	21.5	16.8	11.6	23.3
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Females—					
Less than one month	42.7	55.0	56.6	68.1	60.9
One month and less than three months	26.7	21.1	27.5	22.3	22.7
Three months and over	30.6	23.9	15.9	9.6	16.4
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Persons—					
Less than one month	43.7	58.5	59.3	68.7	63.4
One month and less than three months	26.3	19.1	24.4	20.7	16.4
Three months and over	30.0	22.4	16.3	10.6	20.2
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

(*a*) Persons aged 14 years and over. (*b*) Persons aged 15 years and over.

Persons working less than 35 hours a week

In the work force surveys, persons who report themselves as having worked less than thirty-five hours a week are further questioned to ascertain their reasons for not working longer hours. In the following table, employed civilians in the six State capital cities who worked less than thirty-five hours a week are classified according to the reasons why they did not work longer hours. Figures for November 1966 relate to persons aged fifteen years and over; those for earlier periods include persons aged fourteen years.

EMPLOYED CIVILIANS WHO WORKED LESS THAN 35 HOURS A WEEK, BY REASON: NOVEMBER 1962 TO 1966

SIX AUSTRALIAN STATE CAPITAL CITIES

November—	Reason for working less than 35 hours a week								
	Persons who usually work 35 hours or more a week			Persons who usually work less than 35 hours a week			All persons who worked less than 35 hours in the survey period		
	Lack of work (*a*)	Other reasons (*b*)	Total	Lack of work (*c*)	Other reasons (*d*)	Total	Lack of work (*a*)(*c*)	Other reasons (*b*)(*d*)	Total
Number ('000)—									
1962(*e*)	14.7	228.3	243.0	12.2	197.4	209.6	26.9	425.7	452.6
1963(*e*)	12.4	229.9	242.2	7.6	213.1	220.7	20.0	443.0	463.0
1964(*e*)	10.7	226.5	237.2	7.3	230.5	237.8	18.0	457.0	475.0
1965(*e*)	17.2	238.8	256.0	7.8	258.1	265.8	25.0	496.8	521.8
1966(*f*)	17.5	239.0	256.5	6.5	279.0	285.5	24.0	518.0	542.0
Proportion of the civilian work force of the six capitals (per cent)—									
1962(*e*)	0.6	8.9	9.5	0.5	7.7	8.2	1.1	16.6	17.7
1963(*e*)	0.5	8.8	9.3	0.3	8.2	8.5	0.8	17.0	17.8
1964(*e*)	0.4	8.5	8.9	0.3	8.6	8.9	0.7	17.1	17.8
1965(*e*)	0.6	8.6	9.2	0.3	9.3	9.6	0.9	17.9	18.8
1966(*f*)	0.6	8.3	8.9	0.2	9.7	9.9	0.8	18.1	18.9

(*a*) Excludes persons laid off for whole week without pay, who are included in the unemployed. The figures comprise persons working short time, those who lost their jobs or commenced in new jobs during the specified week, and those absent from work because of plant breakdowns or bad weather. (*b*) Own illness or injury, leave or holiday, and industrial disputes. (*c*) Persons who would prefer to work 35 hours or more a week if suitable work were available. (*d*) Persons who prefer to work less than 35 hours a week. (*e*) Persons aged 14 years and over. (*f*) Persons aged 15 years and over.

Surveys of multiple jobholding

Surveys of the nature and extent of multiple jobholding in Australia were conducted during November 1965 and August 1966. A multi-stage area sample of households (inclusive of hotels, hospitals, and other non-private dwellings) was used, and the surveys covered all employed civilians aged fifteen years and over in August 1966 and fourteen years and over in November 1965, other than certain diplomatic personnel customarily excluded from the census and estimated populations.

For the purpose of these surveys, employed persons are defined as in the previous section dealing with the work force survey (*see* page 1188). The numbers of multiple jobholders shown in the following tables do not include persons who were described as employers or self-employed in two businesses (including farms). They comprise only those persons who were employed in at least one of their jobs as a wage or salary earner or as an unpaid family helper. For the purpose of the survey a second job did not exclude such occupations as those of professional sportsmen, part-time musicians, paid coaches and the like. Persons who by the very nature of their employment worked for more than one employer, e.g. domestics, odd-job men, baby-sitters, etc. were not counted as multiple jobholders unless they also held another job of a different kind, nor were those who worked for more than one employer solely by reason of changing jobs during survey week.

The November 1965 survey was largely exploratory and some of the questions were modified in the August 1966 survey. The figures shown in the following tables for all persons who held a second job in the survey week are not strictly comparable for the two surveys; however, the figures shown for persons who actually worked in a second job in the survey week are comparable. Further details of the results of these two surveys may be found in Statistical Bulletins 465, *Survey of Multiple Jobholding, November 1965*, and 564, *Survey of Multiple Jobholding, August 1966*.

Occupational status

The following table shows, for November 1965 and August 1966, the occupational status of multiple jobholders in their main and second jobs.

PERSONS WITH MORE THAN ONE JOB(*a*): OCCUPATIONAL STATUS IN MAIN AND SECOND JOBS, BY SEX, AUSTRALIA, NOVEMBER 1965 AND AUGUST 1966

('000)

Occupational status in main job(*b*)	Date	Occupational status in second job					
		Employer or self-employed		Wage or salary earner(*c*)		Total	
		Males	Females	Males	Females	Males	Females
PERSONS WHO ACTUALLY WORKED IN A SECOND JOB IN SURVEY WEEK							
Employer or self-employed .	Nov. 1965	. .	. .	12.0	*	12.0	*
	Aug. 1966	. .	. .	10.7	*	10.7	*
Wage or salary earner(*c*) .	Nov. 1965	28.2	*	57.4	12.1	85.7	14.5
	Aug. 1966	31.5	*	65.4	13.8	97.0	15.7
Total . . .	**Nov. 1965**	**28.2**	*	**69.4**	**13.2**	**97.6**	**15.6**
	Aug. 1966	**31.5**	*	**76.1**	**15.7**	**107.6**	**17.6**
ALL PERSONS WHO HELD A SECOND JOB IN SURVEY WEEK(*d*)							
Employer or self-employed .	Nov. 1965	. .	. .	15.5	*	15.5	*
	Aug. 1966	. .	. .	13.3	*	13.3	*
Wage or salary earner(*c*) .	Nov. 1965	37.2	*	74.5	14.9	111.7	17.9
	Aug. 1966	39.4	*	74.5	15.8	113.9	18.6
Total . . .	**Nov. 1965**	**37.2**	*	**89.9**	**16.4**	**127.1**	**19.4**
	Aug. 1966	**39.4**	*	**87.7**	**18.0**	**127.1**	**20.9**

(*a*) Comprises only those civilians who were employed in at least one of their jobs as a wage or salary earner or as an unpaid family helper. *See* note (*c*). Figures for August 1966 relate to persons aged 15 years and over; those for November 1965 relate to persons aged 14 years and over, the number of 14 year olds included being approximately 100. (*b*) The main job is the job at which most hours were worked during survey week or, where no hours were worked or the hours were equal, the job considered by the respondent to be the main job. (*c*) Includes a small number of unpaid family helpers. (*d*) Figures for November 1965 are not strictly comparable with those for August 1966.

* Estimates less than 5,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived, undue significance should not be placed on them.

Distribution by States

The following table shows, for November 1965 and August 1966, the number of multiple jobholders in each State.

PERSONS WITH MORE THAN ONE JOB(*a*): STATES, NOVEMBER 1965 AND AUGUST 1966

('000)

	Date	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia (*b*)
Persons who actually worked in a second job in survey week	Nov. 1965	36.1	30.1	10.5	17.6	11.5	5.0	113.3
	Aug. 1966	44.4	33.5	10.1	18.1	10.7	5.7	125.2
All persons who held a second job in survey week(*c*)	Nov. 1965	49.6	36.1	15.1	21.3	14.9	7.1	146.5
	Aug. 1966	53.0	38.0	14.3	20.7	12.7	6.5	148.0

(*a*) Comprises only those civilians who were employed in at least one of their jobs as a wage or salary earner or as an unpaid family helper. Figures for August 1966 relate to persons aged 15 years and over; those for November 1965 relate to persons aged 14 years and over, the number of 14 year olds included being approximately 100. (*b*) Includes the Northern Territory and the Australian Capital Territory. (*c*) Figures for November 1965 are not strictly comparable with those for August 1966.

NOTE. The numbers of females are too small to show in the detail given above. The surveys indicate that in August 1966 there were 20,900 female multiple jobholders, of whom 8,400 were in New South Wales and 5,000 in Victoria; corresponding figures for November 1965 were 19,400, 6,400 and 5,100.

Industry group of main and second job

The following table shows the industry dissection of the main and second job(s) of multiple jobholders in November 1965 and August 1966.

PERSONS WITH MORE THAN ONE JOB(*a*): INDUSTRY GROUP OF MAIN AND SECOND JOBS, AUSTRALIA, NOVEMBER 1965 AND AUGUST 1966

('000)

Industry group	Persons who actually worked in a second job in survey week				All persons who held a second job in survey week(*b*)			
	Main job(*c*)		Second job		Main job(*c*)		Second job	
	Nov. 1965	Aug. 1966	Nov. 1965	Aug. 1966	Nov. 1965	Aug. 1966	Nov. 1965	Aug. 1966
Primary production	14.3	15.2	24.8	23.7	20.9	21.4	33.0	29.9
Manufacturing	23.8	31.8	10.2	9.6	30.5	36.0	15.1	12.0
Building and construction	10.0	9.4	5.7	5.2	12.9	10.9	9.1	6.0
Transport and communication	9.6	8.7	6.6	7.3	12.4	9.7	7.4	8.3
Commerce	19.3	19.4	14.8	17.0	24.3	23.2	17.7	20.1
Public authority (n.e.i.) and community and business services	21.0	23.0	18.1	19.8	26.0	26.1	21.9	22.5
Amusement, hotels, cafés, personal service, etc.	6.1	6.8	30.6	40.7	7.8	8.1	38.4	46.7
Other industries(*d*)	9.2	10.8	*	*	11.7	12.5	*	*
Total	**113.3**	**125.2**	**113.3**	**125.2**	**146.5**	**148.0**	**146.5**	**148.0**

(*a*) Comprises only those civilians who were employed in one of their jobs as a wage earner or as an unpaid family helper. Figures for August 1966 relate to persons aged 15 years and over; those for November 1965 relate to persons aged 14 years and over, the number of 14 year olds included being approximately 100. (*b*) Figures for November 1965 are not strictly comparable to those for August 1966. (*c*) The main job is the job at which most hours were worked during the survey week or, where no hours were worked or the hours were equal, the job considered by the respondent to be the main job. (*d*) Comprises mining and quarrying, electricity, gas, water and sanitary services, finance and property.

* Estimates less than 5,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although the figures can be derived, undue significance should not be attached to them.

Surveys of leavers from schools, universities or other educational institutions

Surveys using a multi-stage area sample of households (inclusive of hotels, hospitals and other non-private dwellings) were carried out on an Australia-wide basis in February of each year from 1964 to 1967.

The survey questions were designed to distinguish persons who had attended full time at a school, university or other educational institution at some time in the previous year and, among such persons, to identify those who were intending to return to full-time education and those who were not returning to full-time education, the latter being described in this section as 'leavers'.

Estimates shown in the following tables relate to the total population of Australia within the age range fifteen to twenty-four years, with the exception of members of the permanent armed forces, national servicemen enlisted in the Regular Army Supplement, and certain diplomatic personnel customarily excluded from census and estimated populations.

Persons who were patients in hospitals and sanatoriums, or inmates of gaols, reformatories, etc. and for whom, for the purpose of the survey, the institution was regarded as their dwelling, although included in the survey, were not asked the particular questions on attendance at schools, etc. Persons who were reported as permanently unable to work were also not asked these questions. An estimate of the total number of such persons for whom no information on attendance, etc. can be given is shown in the first table in this section.

The 'leavers', i.e. the persons who had attended full time at a school, university, etc. at some time in the previous year and who were not returning to full-time education, were asked to indicate when they had ceased full-time education. All persons were asked questions about their occupational status and those in the work force were further questioned about occupation and industry. Although many persons who were intending to return to full-time education were in the work force at the time of the surveys, their numbers would not give a useful indication of the extent of vacation working, because of the timing of the surveys. The occupational status of each person was determined in the same way as in the work force survey (*see* page 1188).

For further details reference should be made to Statistical Bulletin 679, *Survey of Leavers from Schools, Universities or Other Educational Institutions, February 1964, 1965, 1966 and 1967.*

School attendance status

The following table shows, for February in each of the years 1964 to 1967, the school attendance status of the civilian population aged fifteen to twenty-four years.

CIVILIANS AGED 15 TO 24 YEARS(*a*), BY ATTENDANCE OR NON-ATTENDANCE FULL-TIME AT A SCHOOL, UNIVERSITY, ETC. IN THE PREVIOUS YEAR: AUSTRALIA, FEBRUARY 1964 TO 1967

('000)

School, etc. attendance	February 1964		February 1965		February 1966		February 1967		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
Attended school, university, etc. full time in the previous year(*b*)—									
Returning to full-time education . . .	143.3	113.1	168.3	119.4	174.7	124.7	192.1	140.1	332.3
Not returning to full-time education ('leavers') .	87.6	78.2	83.3	79.6	88.7	84.8	85.0	82.4	167.4
Total who attended school, etc. . .	*230.9*	*191.3*	*251.5*	*199.0*	*263.3*	*209.5*	*277.1*	*222.5*	*499.7*
Did not attend school, university, etc., full time in previous year(*b*) . .	614.4	628.4	644.7	668.2	668.6	692.5	679.8	719.6	1,399.4
In hospitals, etc.(*c*) . .	9.5	5.2	9.0	6.3	11.7	8.1	11.9	6.6	18.5
Total persons aged 15 to 24 years . .	**854.8**	**824.8**	**905.2**	**873.5**	**943.6**	**910.1**	**968.8**	**948.8**	**1,917.6**

(*a*) At the time of the survey. (*b*) Excludes some patients in hospitals and sanatoriums and some inmates of gaols, reformatories, etc. at the time of the survey, and persons permanently unable to work. (*c*) Estimated numbers of persons within the scope of the survey for whom the hospital, sanatorium, gaol, reformatory, etc. was regarded as their dwelling and persons who were reported as permanently unable to work. Particulars of attendance at schools, etc., were not obtained in respect of such persons.

Occupational status of 'leavers'

The following table shows, for February in each of the years 1964 to 1967, the occupational status of civilian school 'leavers' in the age range 15 to 24 years.

'LEAVERS'(*a*)(*b*), BY OCCUPATIONAL STATUS: AUSTRALIA FEBRUARY 1964 TO 1967

('000)

Occupational status	February 1964		February 1965		February 1966		February 1967		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
In the work force—									
Employed(*c*) . . .	76.9	57.8	75.5	60.5	77.7	64.2	71.3	63.6	134.9
Unemployed . . .	7.9	9.9	*	9.7	8.0	11.2	8.6	11.1	19.6
Total in the work force	84.7	67.6	80.2	70.2	85.7	75.3	79.9	74.6	154.5
Not in the work force . .	*	*10.7*	*	*9.4*	*	*9.5*	*5.1*	*7.8*	*12.9*
Total 'leavers'(*a*)(*b*) .	**87.6**	**78.2**	**83.3**	**79.6**	**88.7**	**84.8**	**85.0**	**82.4**	**167.4**

(*a*) Persons aged 15 to 24 years inclusive at the time of the survey who had attended school, university, etc. full time during the previous year and who were not returning to full-time education. (*b*) *See* notes (*b*) and (*c*) to previous table. (*c*) Includes wage and salary earners, employers, self-employed persons, and unpaid family helpers.

* Estimates of less than 5,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived, undue significance should not be attached to them.

Distribution of 'leavers' by States

The following table shows, for February in each of the years 1964 to 1967, the distribution by States of civilian school 'leavers' in the age range 15 to 24 years.

'LEAVERS'(*a*)(*b*), BY STATES, FEBRUARY 1964 TO 1967

('000)

State	February 1964		February 1965		February 1966		February 1967		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
New South Wales	35.3	29.3	30.1	29.1	32.1	32.4	29.7	27.2	57.0
Victoria	24.4	18.5	21.2	20.3	24.0	22.4	24.3	23.1	47.4
Queensland	9.2	11.0	13.9	11.6	11.3	11.9	12.2	13.6	25.9
South Australia	8.0	8.6	9.3	7.3	10.3	9.1	7.9	8.9	16.8
Western Australia	6.3	5.5	5.9	6.7	6.8	6.2	6.8	5.9	12.8
Tasmania	*	*	*	*	*	*	*	*	6.2
Australia(*c*)	**87.6**	**78.2**	**83.3**	**79.6**	**88.7**	**84.8**	**85.0**	**82.4**	**167.4**

(*a*) Persons aged 15 to 24 years inclusive at the time of the survey who had attended school, university, etc. full time during the previous year and who were not returning to full-time education. (*b*) *See* notes (*b*) and (*c*) to first table on page 1195. (*c*) Includes the Northern Territory and the Australian Capital Territory.

* Estimates of less than 5,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived, undue significance should not be attached to them.

Time of leaving

The following table shows, for February in each of the years 1964 to 1967, the time of leaving school, university, etc. of civilian school 'leavers' in the age ranges 15 to 19 years and 15 to 24 years.

'LEAVERS'(*a*)(*b*), BY AGE GROUP AND BY TIME OF LEAVING FEBRUARY 1964 TO 1967

('000)

Time of leaving	February 1964		February 1965		February 1966		February 1967		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
PERSONS AGED 15 TO 19 YEARS									
Previous January–June	8.0	6.8	6.3	8.6	7.2	7.3	6.0	7.1	13.1
Previous July–September	6.2	9.6	7.3	7.8	5.0	7.6	*	6.8	11.0
Previous October	*	*	*	*	*	*	*	*	6.9
Previous November	16.5	13.9	15.7	13.7	19.2	19.1	21.6	21.5	43.1
Previous December(*b*)	48.8	42.4	46.8	42.3	47.7	44.8	41.8	39.3	81.1
Total(*a*)	**81.7**	**74.7**	**78.6**	**76.6**	**82.2**	**82.9**	**76.6**	**78.7**	**155.3**
PERSONS AGED 15 TO 24 YEARS									
Previous January–June	8.4	7.0	6.5	8.8	7.5	7.3	6.7	7.3	14.0
Previous July–September	6.8	9.8	7.5	7.8	5.4	7.7	*	7.1	11.5
Previous October	*	*	*	*	*	*	*	*	7.4
Previous November	18.6	14.8	17.3	14.9	20.8	19.7	25.2	22.8	48.0
Previous December(*b*)	51.3	44.4	49.3	44.0	51.6	45.8	45.5	41.0	86.5
Total(*a*)	**87.6**	**78.2**	**83.3**	**79.6**	**88.7**	**84.8**	**85.0**	**82.4**	**167.4**

(*a*) *See* notes (*b*) and (*c*) to first table on page 1195. (*b*) Includes a small number of persons who left school, university, etc. in January or February of the following year.

* Estimates of less than 5,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived, undue significance should not be attached to them.

WAGE AND SALARY EARNERS IN EMPLOYMENT

The series contained in this section, except those relating to government employees and defence forces, are based on comprehensive data (referred to herein as 'benchmarks') derived for the purpose from the population census of June 1961. Between population censuses the employment data are obtained from three main sources, namely (*a*) current pay-roll tax returns; (*b*) current returns from government bodies; and (*c*) some other current direct records of employment (e.g. for hospitals). The total of recorded employment is supplemented each month by estimates of changes in the number of wage and salary earners not covered by the foregoing collections. The series relate only to wage and salary earners. They therefore exclude employers, self-employed persons and unpaid helpers. Also excluded, because of the inadequacy of current data, are employees in rural industry and in private domestic service.

Pay-roll tax returns are lodged at present by all employers paying more than $400 a week in wages (other than certain Commonwealth Government bodies, religious and benevolent institutions, public hospitals, and other similar organisations specifically exempted under the *Pay-roll Tax Assessment Act* 1941–1967). The present exemption limit of $400 was introduced as from 1 September 1957.

The benchmark figures were derived from particulars recorded for individuals on population census schedules, while the estimated monthly figures are derived mainly from reports supplied by employers, relating to enterprises or establishments. Because the two sources differ in some cases in scope and in the reporting of industry, the industry dissection of the benchmark totals was adjusted to conform as closely as possible to an enterprise/establishment reporting basis. The industry classification used throughout the series is that of the population census of June 1961.

At the 1961 population census those persons who were not stated to be engaged in an industry, business, profession, trade, or service were required to be described as students, pensioners, engaged in home duties, etc., and were automatically classified as not being in the work force. It is believed that many persons—particularly married women—classified themselves according to their main or usual activity or status (e.g. home duties) and overlooked any part-time or casual employment that they may have had at the time of the census. Had the census questions been designed to obtain particulars of each person's actual activity during a specified period (as the 1966 population census work force questions were), so that all employees who did any paid work at all would have been included, these persons would have been counted in the total of employed wage and salary earners.

The scope of the current monthly series is similar to and subject to the same limitations as that of the population census benchmarks. For this reason the totals shown in this section for Australia, for States and Territories, and for industries, do not necessarily represent, at any point of time, the total numbers of wage and salary earners employed full-time or part-time in those areas or industries. Instead, they represent the estimated numbers of persons who would have been counted as wage and salary earners at a population census in which the concepts and definitions were the same as those of the 1961 census. Concepts and definitions adopted at the 1966 census differed from those of 1961 and conformed closely to the recommendations of the Eighth International Conference of Labour Statisticians, all persons who did any paid work for an employer or who had a job as an employee from which they were temporarily absent being included in the total of employed wage and salary earners. As a result, the estimates for June 1966 shown in this section will differ from the corresponding census figures. The monthly estimates are also different in concept from the estimates obtained by means of the quarterly work force survey (*see* definitions on page 1188).

Current data supplied by reporting enterprises or establishments generally refer to persons on the payroll for the last pay-period in each month. Persons who are on paid leave or who work during part of the pay-period and are unemployed or on strike during the rest of the period are generally counted as employed. Those not shown on employers' payrolls because they are on leave without pay, on strike or stood down for the entire period are excluded.

Although the level of the estimates in this section may be affected by the exclusion of some part-time employees from the 1961 census benchmarks, nevertheless it is considered that they measure reasonably well the short-term trends in employment *in the defined field*. However, they may be less reliable for longer-term measurement. Because of conceptual differences between benchmark and payroll data, changes in such factors as labour turnover, multiple jobholding and part-time working are all apt to affect the trend during intercensal periods.

Total civilian employees and defence forces

The following table shows, for Australia, the estimated numbers of private and government civilian employees (excluding employees in rural industry and private domestic service) and the numbers in the defence forces at June of each of the years 1961 and 1963 to 1967.

WAGE AND SALARY EARNERS IN EMPLOYMENT, BY SEX: AUSTRALIA JUNE 1961 TO JUNE 1967

(EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE)

('000)

	June 1961	June 1963	June 1964	June 1965	June 1966	June 1967
Males—						
Civilian employees—						
Private	1,594.6	1,680.8	1,762.3	1,834.7	1,862.3	1,879.3
Government(*a*) . . .	669.7	695.4	707.0	718.4	745.7	758.6
Total	2,264.3	2,376.2	2,469.3	2,553.1	2,608.0	2,637.9
Defence forces(*b*) . . .	44.3	47.2	49.6	52.5	64.2	74.8
Total	*2,308.6*	*2,423.4*	*2,518.9*	*2,605.6*	*2,672.2*	*2,712.7*
Females—						
Civilian employees—						
Private	714.5	771.5	815.1	863.2	894.9	927.7
Government(*a*) . . .	154.4	167.1	176.3	187.8	201.5	211.8
Total	868.9	938.6	991.4	1,051.0	1,096.4	1,139.5
Defence forces(*b*) . . .	1.8	2.1	2.2	2.2	2.5	2.5
Total	*870.7*	*940.7*	*993.6*	*1,053.2*	*1,098.9*	*1,142.0*
Persons—						
Civilian employees—						
Private	2,309.1	2,452.3	2,577.4	2,697.9	2,757.2	2,807.0
Government(*a*) . . .	824.1	862.5	883.3	906.2	947.2	970.4
Total	3,133.2	3,314.8	3,460.7	3,604.1	3,704.4	3,777.4
Defence forces(*b*) . . .	46.1	49.3	51.8	54.7	66.6	77.3
Total	**3,179.3**	**3,364.1**	**3,512.5**	**3,658.8**	**3,771.0**	**3,854.7**

(*a*) Includes employees, within Australia, of government authorities (Commonwealth, State, local, and semi-government) on services such as railways, tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories and munitions establishments, departmental hospitals and institutions, migrant hostels, etc., as well as administrative employees. *See* pages 1202-3. (*b*) Permanent defence forces in Australia and overseas. Figures for June 1966 and June 1967 include national servicemen enlisted in the Regular Army Supplement.

Civilian employees

The following table shows, for Australia, the estimated number of wage and salary earners in civilian employment (excluding employees in rural industry and private domestic service) in the principal industry groups at June of each of the years 1961 and 1963 to 1967.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY INDUSTRY GROUP AND SEX: AUSTRALIA, JUNE 1961 TO JUNE 1967

(Excluding Employees in Rural Industry and Private Domestic Service and Defence Forces)

('000)

Industry group	June 1961	June 1963	June 1964	June 1965	June 1966	June 1967
MALES						
Mining and quarrying	48.2	45.9	46.4	47.7	50.3	51.3
Manufacturing(*a*)	821.6	879.4	920.9	952.2	956.3	966.9
Electricity, gas, water, and sanitary services	88.5	91.5	93.4	94.6	97.7	99.6
Building and construction	274.8	281.6	290.0	299.0	310.1	299.2
Transport and storage	190.4	187.1	192.5	197.9	201.8	201.9
Communication	75.2	76.8	78.1	79.3	81.1	84.2
Finance and property	80.4	86.2	92.1	96.9	101.7	105.4
Retail trade	191.3	203.2	210.8	215.8	216.5	217.9
Wholesale and other commerce	161.4	164.4	170.5	177.1	179.3	180.1
Public authority activities (n.e.i.)	95.0	101.7	105.7	110.1	116.5	122.6
Health, hospitals, etc.	31.0	33.8	35.3	36.2	37.3	38.6
Education	57.1	66.2	69.5	73.3	78.1	82.1
Amusement, hotels, personal service, etc.	70.1	74.6	78.2	83.2	87.9	91.9
Other(*b*)	79.3	83.9	86.1	89.9	93.4	96.2
Total	**2,264.3**	**2,376.2**	**2,469.3**	**2,553.1**	**2,608.0**	**2,637.9**
FEMALES						
Mining and quarrying	1.4	1.6	1.7	1.8	2.0	2.4
Manufacturing(*a*)	233.5	259.7	277.6	293.8	297.5	305.9
Electricity, gas, water, and sanitary services	6.2	6.4	6.5	7.0	7.4	7.4
Building and construction	4.9	5.5	5.8	6.6	7.1	7.5
Transport and storage	17.0	17.1	18.1	19.4	21.0	21.7
Communication	18.3	18.3	19.3	20.6	21.5	22.6
Finance and property	54.2	56.6	60.0	63.6	67.6	70.2
Retail trade	150.7	162.7	169.5	177.6	184.2	191.9
Wholesale and other commerce	49.2	50.0	52.1	55.5	58.1	59.2
Public authority activities (n.e.i.)	34.6	37.2	39.1	42.0	46.2	49.4
Health, hospitals, etc.	102.6	111.4	117.6	124.3	129.2	133.3
Education	73.7	83.6	87.9	92.1	98.4	103.5
Amusement, hotels, personal service, etc.	78.8	81.8	86.0	93.5	100.0	105.5
Other(*b*)	43.9	46.8	50.3	53.2	56.1	59.1
Total	**868.9**	**938.6**	**991.4**	**1,051.0**	**1,096.4**	**1,139.5**

For footnotes *see* page 1201.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT
PRINCIPAL INDUSTRY GROUPS
AUSTRALIA, 1956-57 TO 1966-67

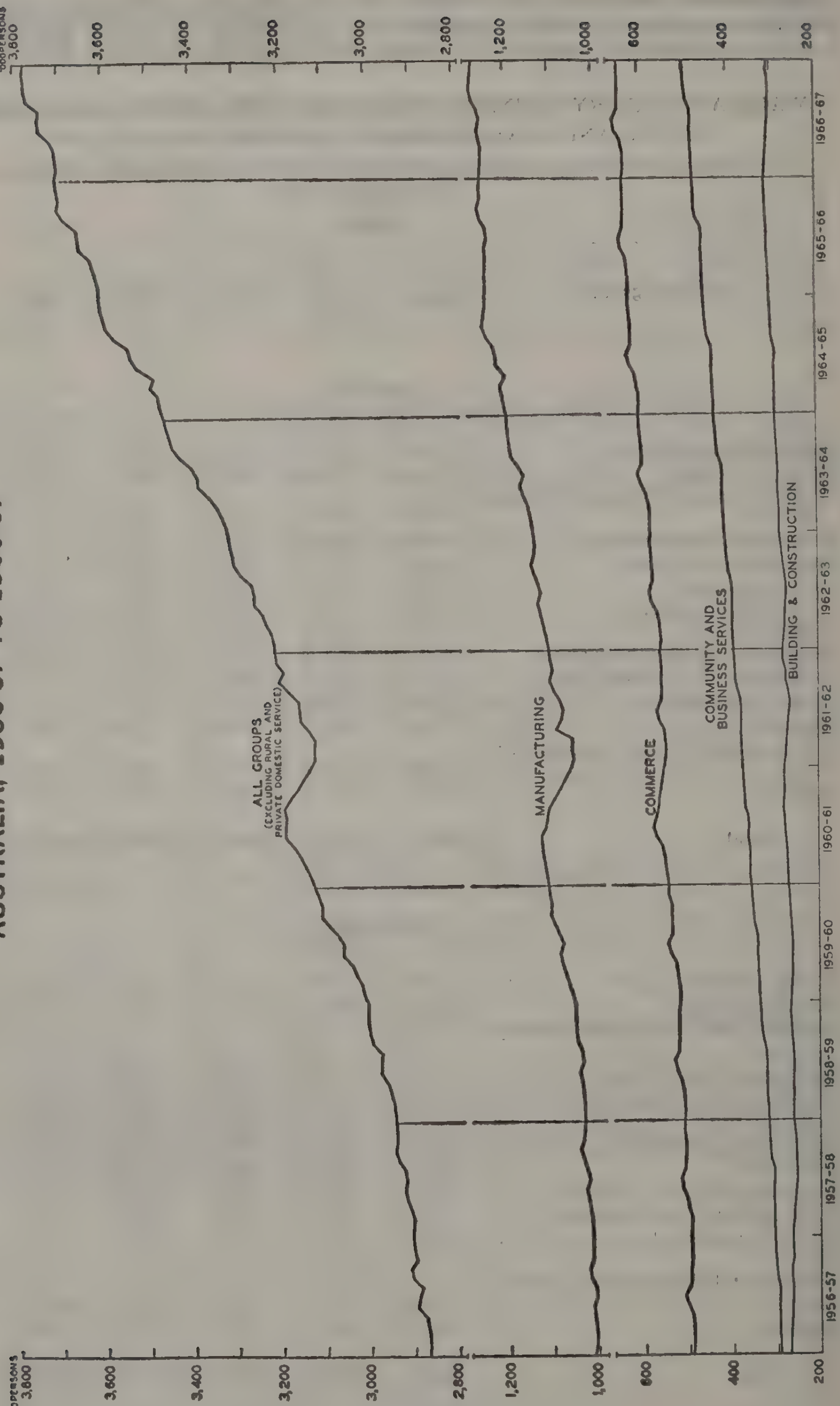

PLATE 57

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY INDUSTRY GROUP AND SEX: AUSTRALIA, JUNE 1961 TO JUNE 1967—*continued*

(Excluding Employees in Rural Industry and Private Domestic Service and Defence Forces)

('000)

Industry group	June 1961	June 1963	June 1964	June 1965	June 1966	June 1967
PERSONS						
Mining and quarrying	49.6	47.5	48.1	49.4	52.3	53.7
Manufacturing(*a*)	1,055.1	1,139.1	1,198.5	1,246.1	1,253.7	1,272.8
Electricity, gas, water, and sanitary services	94.7	97.9	99.9	101.6	105.1	106.9
Building and construction	279.7	287.1	295.8	305.6	317.2	306.6
Transport and storage	207.4	204.2	210.6	217.3	222.8	223.6
Communication	93.5	95.1	97.4	99.9	102.6	106.8
Finance and property	134.6	142.8	152.1	160.4	169.2	175.6
Retail trade	342.0	365.9	380.3	393.4	400.7	409.9
Wholesale and other commerce	210.6	214.4	222.6	232.6	237.5	239.3
Public authority activities (n.e.i.)	129.6	138.9	144.8	152.1	162.8	172.0
Health, hospitals, etc.	133.6	145.2	152.9	160.5	166.5	171.8
Education	130.7	149.7	157.4	165.4	176.5	185.6
Amusement, hotels, personal service, etc.	148.9	156.4	164.2	176.7	187.8	197.4
Other(*b*)	123.2	130.7	136.3	143.2	149.6	155.3
Total	**3,133.2**	**3,314.8**	**3,460.7**	**3,604.1**	**3,704.4**	**3,777.4**

(*a*) As well as employees engaged directly in manufacturing activity, these figures include the employees of manufacturing enterprises or establishments who are engaged in selling and distribution, etc. (*b*) Comprises forestry, fishing and trapping; law, order and public safety; religion and social welfare; and other community and business services.

Estimates of the number of wage and salary earners (excluding employees in rural industry and private domestic service, and defence forces) are shown in the following table for each State and Territory at June of each of the years 1961 and 1963 to 1967.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY SEX: STATES AND TERRITORIES, JUNE 1961 TO JUNE 1967

(Excluding Employees in Rural Industry and Private Domestic Service and Defence Forces)

('000)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (*a*)	Australia
MALES									
1961—June	876.5	643.6	291.7	207.5	148.5	73.2	7.3	16.0	2,264.3
1963—June	914.2	675.2	304.5	219.6	159.4	74.9	8.0	20.4	2,376.2
1964—June	947.7	702.8	316.8	229.4	164.3	77.4	8.9	21.9	2,469.3
1965—June	976.9	723.5	329.1	239.9	171.5	78.4	9.5	24.2	2,553.1
1966—June	996.7	734.3	336.7	242.3	180.4	81.1	10.5	26.0	2,608.0
1967—June	1,006.6	747.1	335.2	243.4	183.8	82.6	11.6	27.5	2,637.9

(*a*) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY SEX: STATES AND TERRITORIES, JUNE 1961 TO JUNE 1967—*continued*

(Excluding Employees in Rural Industry and Private Domestic Service and Defence Forces)

('000)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (*a*)	Australia
					FEMALES				
1961—June	343.6	266.2	102.1	72.3	51.2	24.9	2.3	6.3	868.9
1963—June	370.8	285.4	108.9	80.9	55.5	25.5	2.9	8.7	938.6
1964—June	390.7	300.6	115.5	86.0	58.5	27.1	3.0	10.0	991.4
1965—June	412.6	316.3	123.1	93.4	62.7	28.1	3.2	11.5	1,051.0
1966—June	427.1	328.3	128.8	97.6	68.0	29.8	3.6	13.1	1,096.4
1967—June	443.3	340.7	133.9	99.7	72.5	30.9	4.1	14.4	1,139.5
					PERSONS				
1961—June	1,220.1	909.8	393.8	279.8	199.7	98.1	9.6	22.3	3,133.2
1963—June	1,285.0	960.6	413.4	300.5	214.9	100.4	10.9	29.1	3,314.8
1964—June	1,338.4	1,003.3	432.3	315.5	222.9	104.5	11.9	31.9	3,460.7
1965—June	1,389.5	1,039.8	452.2	333.3	234.2	106.5	12.7	35.7	3,604.1
1966—June	1,423.8	1,062.6	465.5	339.9	248.4	110.9	14.1	39.1	3,704.4
1967—June	1,449.9	1,087.8	469.1	343.1	256.3	113.5	15.7	41.9	3,777.4

(*a*) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

Government employees

The numbers of civilian employees of Commonwealth, State and local government authorities in each State and Territory at June 1967 are shown in the following table. These include employees within Australia of government authorities on services such as railways. tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories and munitions establishments, departmental hospitals and institutions, migrant hostels, etc., as well as administrative employees.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES, BY SEX: STATES AND TERRITORIES, JUNE 1967

('000)

State or Territory	Commonwealth Government(*a*)			State Government(*a*)			Local Government			Total(*a*)		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
N.S.W.	76.4	23.3	99.7	153.8	48.4	202.2	42.3	5.3	47.5	272.4	77.0	349.4
Vic.	62.9	19.1	82.0	119.6	34.3	153.9	16.3	2.3	18.7	198.8	55.7	254.5
Qld	22.3	6.5	28.8	67.1	15.7	82.8	18.4	1.4	19.7	107.8	23.6	131.4
S.A.	22.3	5.2	27.5	46.3	17.2	63.5	4.5	0.5	5.0	73.1	23.0	96.1
W.A.	12.3	3.3	15.6	42.5	11.7	54.2	5.0	0.6	5.6	59.7	15.7	75.4
Tas.	4.9	1.5	6.4	18.0	5.1	23.1	2.3	0.2	2.5	25.3	6.8	32.1
N.T.	5.1	1.9	6.9	..	..	..	0.1	..	0.1	5.2	1.9	7.0
A.C.T.	16.3	8.2	24.5	..	..	..	..	..	..	16.3	8.2	24.5
Australia	222.6	68.9	291.5	447.3	132.6	579.8	88.8	10.4	99.1	758.6	211.8	970.4

(*a*) Includes semi-government authorities. *See* explanation above.

The following table shows at June in each of the years 1961 and 1963 to 1967 the numbers of civilian employees of Commonwealth, State and local government authorities.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES, BY SEX: AUSTRALIA JUNE 1961 TO JUNE 1967

('000)

Month	Commonwealth Government(*a*)			State Government(*a*)			Local Government			Total(*a*)		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
June—												
1961 .	182.0	49.7	231.7	411.5	96.9	508.4	76.2	7.8	84.0	669.7	154.4	824.1
1963 .	189.7	51.4	241.1	424.6	103.7	531.9	81.1	8.4	89.5	695.4	167.1	862.5
1964 .	195.9	54.4	250.3	428.9	113.2	542.1	82.2	8.7	90.9	707.0	176.3	883.3
1965 .	203.3	59.4	262.8	430.9	119.2	550.1	84.2	9.2	93.4	718.4	187.8	906.2
1966 .	213.3	64.7	278.1	442.9	127.1	570.0	89.5	9.6	99.1	745.7	201.5	947.2
1967 .	222.6	68.9	291.5	447.3	132.6	579.8	88.8	10.4	99.1	758.6	211.8	970.4

(*a*) Includes semi-government authorities. *See* explanation on page 1202.

COMMONWEALTH EMPLOYMENT SERVICE

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the *Re-establishment and Employment Act* 1945–1966 (sections 47 and 48). In brief, the main functions of the Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities, and qualifications; and to assist employers seeking labour to obtain employees best suited to their needs. The organisation and functions of the C.E.S. conform to the provisions of the Employment Service Convention, 1948, of the International Labour Organisation, which was ratified by Australia in December 1949. In addition, C.E.S. practices accord substantially with the provisions of the I.L.O. Employment Service Recommendation, 1948.

The C.E.S. functions on a decentralised basis within the Employment and Industrial Services Division of the Department of Labour and National Service. The Central Office is in Melbourne and there is a Regional Office in the capital city of each State. There are 150 District Employment Offices and Branch Offices in suburban and the larger provincial centres and 318 agents in the smaller country centres. The District Employment Offices and Branch Offices are distributed as follows: New South Wales, 54; Victoria, 37; Queensland, 25; South Australia, 14; Western Australia, 13; Tasmania, 4; Northern Territory, 2; Australian Capital Territory, 1.

Specialised facilities are provided for young people, persons with physical and mental handicaps, ex-members of the defence forces, national service dischargees, migrants, rural workers, and persons with professional and technical qualifications. The C.E.S. provides vocational guidance free of charge in all States and has a staff of qualified psychologists for this function. Guidance is available to any person, but is provided particularly for young people, ex-servicemen and the handicapped. In New South Wales the C.E.S. provides vocational guidance to adults, including ex-servicemen and the handicapped, while the State Department of Labour and Industry provides a vocational guidance service within the school system and for young persons leaving school.

All applicants for unemployment benefits under the *Social Services Act* 1947–1966 must register at a District Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them. The C.E.S. is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to Commonwealth migrant hostels. Assistance in obtaining employment is provided to other migrants as required. From the inception of the various free and assisted schemes, including the Displaced Persons Scheme, to the end of June 1967, about 245,000 British and European migrant workers had been placed in initial employment by the C.E.S. Since 1951 it has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance (now replaced by the U.N. Development Programme). The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health, and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out and detailed information is supplied to interested Commonwealth and State Government departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The Service completed its twenty-first year of operation in May 1967. During 1966 there were 1,024,238 applicants who registered for employment, of whom 792,235 were referred to employers and 411,662 placed in employment. New vacancies notified numbered 592,882 and vacancies unfilled at the end of December 1966, 76,457.

Persons registered for employment

The following table shows the number of persons who claimed, when registering for employment with the Commonwealth Employment Service, that they were not employed and who were recorded as unplaced. The figures include those persons who were referred to employers and those who may have obtained employment without notifying the C.E.S. They include persons in receipt of unemployment benefit (*see* the chapter Welfare Services).

PERSONS REGISTERED FOR EMPLOYMENT WITH COMMONWEALTH EMPLOYMENT SERVICE: STATES, JUNE 1963 TO JUNE 1967

(*Source:* Department of Labour and National Service)

Month (*a*)	N.S.W. (*b*)	Vic.	Qld	S.A. (*c*)	W.A.	Tas.	Aust.
1963—June	34,258	19,135	12,055	6,479	6,053	3,427	81,407
1964—June	18,400	10,137	7,558	4,339	5,141	2,968	48,543
1965—June	15,670	8,771	8,360	3,533	3,576	2,235	42,145
1966—June	22,837	14,026	9,735	7,357	3,370	1,695	59,020
1967—June	24,957	16,152	13,025	8,484	3,757	2,116	68,491
1966—July	21,824	14,226	8,205	7,228	3,511	1,829	56,823
August	20,822	13,753	7,807	7,347	2,831	1,719	54,279
September	19,672	12,637	7,440	7,078	2,434	1,655	50,916
October	19,160	11,336	7,296	6,746	2,379	1,654	48,571
November	25,122	11,686	11,888	6,482	3,042	1,657	59,877
December	24,628	19,076	17,954	8,479	3,613	2,707	76,457
1967—January	27,723	22,456	20,327	10,711	4,726	3,022	88,965
February	25,598	17,083	17,417	9,328	3,964	2,864	76,254
March	22,656	12,720	16,086	7,910	3,465	2,020	64,857
April	22,831	13,124	14,648	8,219	3,465	1,759	64,046
May	23,217	15,791	13,464	8,373	3,398	1,942	66,185
June	24,957	16,152	13,025	8,484	3,757	2,116	68,491

(*a*) Generally at Friday nearest end of month. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

REGISTERED UNEMPLOYED AND NUMBER ON UNEMPLOYMENT BENEFIT

AUSTRALIA, 1956-57 TO 1966-67

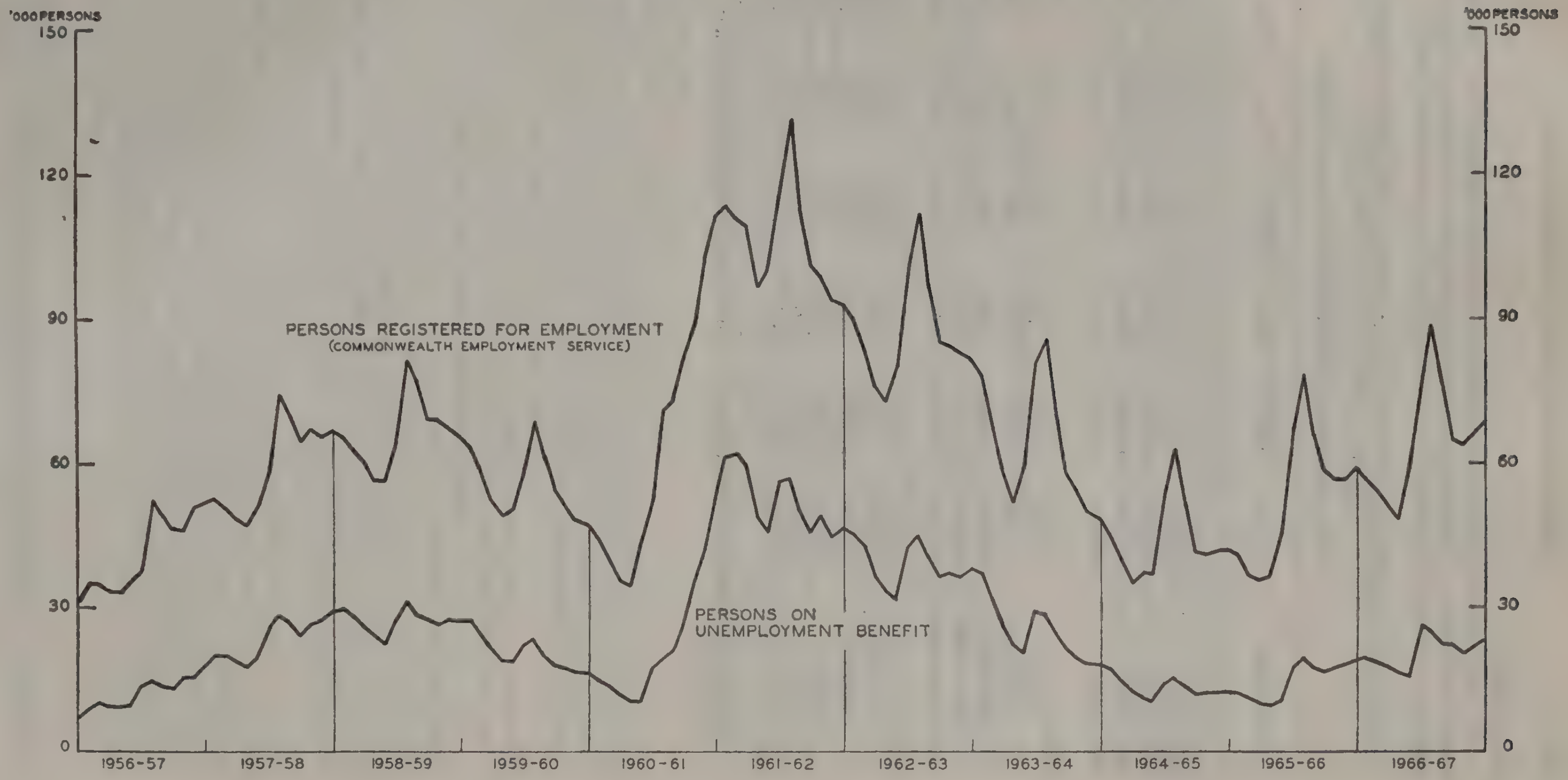

PLATE 58

Job vacancies

The following table shows the number of vacancies registered with the Commonwealth Employment Service. The figures refer to vacancies which employers claimed were available immediately or would be available by the end of the following calendar month.

VACANCIES REGISTERED WITH COMMONWEALTH EMPLOYMENT SERVICE STATES, JUNE 1963 TO JUNE 1967

(*Source:* Department of Labour and National Service)

Month(*a*)	N.S.W. (*b*)	Vic.	Qld	S.A. (*c*)	W.A.	Tas.	Aust.
1963—June	6,419	8,461	2,772	2,007	947	447	21,053
1964—June	12,090	14,141	4,540	3,425	1,143	601	35,940
1965—June	15,602	17,901	3,769	4,356	2,422	639	44,689
1966—June	10,734	13,751	3,239	1,507	2,965	825	33,021
1967—June	10,384	11,459	2,345	1,342	2,411	1,394	29,335
1966—July	11,813	14,261	3,285	1,582	2,805	825	34,571
August	12,818	15,508	3,647	1,657	2,933	869	37,432
September	13,298	17,737	3,705	2,492	2,972	1,019	41,223
October	16,935	22,663	3,700	2,917	3,151	1,402	50,768
November	19,108	24,135	3,798	3,305	3,327	1,840	55,513
December	17,558	22,734	3,372	3,444	2,687	2,242	52,037
1967—January	15,712	22,822	3,524	2,920	2,861	2,015	49,854
February	13,064	18,335	3,004	2,466	3,454	2,264	42,587
March	13,123	16,379	2,650	1,669	3,295	1,636	38,752
April	12,543	15,218	2,618	1,658	3,328	1,287	36,652
May	11,626	12,246	2,409	1,555	2,927	1,248	32,011
June	10,384	11,459	2,345	1,342	2,411	1,394	29,335

(*a*) Generally at Friday nearest end of month. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

CHAPTER 30

MISCELLANEOUS

This chapter comprises statistics and other descriptive information not directly related to the subjects of the preceding chapters, or which it is convenient to assemble in single sections, arranged as follows: Valuation of Australian production; Indexes of farm production; Consumption of foodstuffs and beverages; Retail trade; Interstate trade; Statistical organisation in Australia; Statistical and other official publications of Australia; 36th Session of the International Statistical Institute.

Valuation of Australian production

The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published in the following tables have been compiled by the Statisticians in the various States from the latest and best data available and are on a substantially uniform basis. However, marketing costs are not on a completely comparable basis between States and, in addition, accurate information is difficult to obtain for many items. In consequence, differences between States in the relationships of local to gross value should be treated with some reserve.

Attention is directed to the fact that the values shown in the tables herein refer only to the production of primary industries and factories, and exclude the building and construction industry, those industrial establishments not classified as factories, and certain agricultural and farmyard produce obtained from areas of less than one acre.

Explanation of terms used

The following is a brief explanation of the terms used.

(a) *Gross value of production* is the value placed on recorded production at the wholesale price realised at the principal markets. In general, the 'principal markets' are the metropolitan markets in each State. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.

(b) *Local value* (i.e. gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.

(c) *Net value of production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays, and other costs. No deductions have been made for depreciation or certain maintenance costs as particulars are not available for all States. The net value of production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

For the years shown in the following tables, no allowance for power, power kerosene, petrol, and other oils has been made in New South Wales. In the case of the mining and quarrying industry, however, this allowance has been made in all States. Marketing costs for mining and quarrying and costs of materials used in the process of production in respect of bee-farming, trapping, forestry, and fisheries are not available for all States. Local values have been used for these industries, with consequent understatement in gross value for the mining and quarrying industry and overstatement in net value for the other industries.

Value of production, Australia

The following table shows particulars of the gross, local and net values of production in Australia, by industry.

GROSS, LOCAL AND NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES: AUSTRALIA, 1965-66

($'000)

Industry	Gross production valued at principal markets	Local value—gross production valued at place of production	Net value of production (without deduction of depreciation or maintenance)
Agriculture	1,184,571	1,014,556	861,115
Pastoral	1,498,335	1,372,225	1,188,536
Dairying	507,973	469,393	349,853
Poultry	154,603	137,158	62,636
Bee-farming	4,323	3,515	(a) 3,515
Total, rural	*3,349,806*	*2,996,848*	*2,465,653*
Trapping	15,570	13,824	(a) 13,824
Forestry	125,044	114,603	(a) 114,603
Fishing and whaling	45,794	41,725	(a) 41,725
Mining and quarrying	(a) 543,642	543,642	443,173
Total, non-rural	*730,050*	*713,794*	*613,325*
Total, all primary	*4,079,856*	*3,710,642*	*3,078,978*
Factories	(b) 6,275,355	(b) 6,275,355	6,275,355
Grand total	**10,355,211**	**9,985,997**	**9,354,333**

(a) Local value. (b) Net value.

Net value of production

The following tables show the total net value of production and the net value per head of population, for each industry and State, for 1965–66, and the total net value for Australia, by industry, for the years 1961–62 to 1965–66.

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES STATES AND TERRITORIES, 1965-66

($'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Agriculture	175,390	202,674	198,665	105,657	155,181	23,070	225	253	861,115
Pastoral	356,470	346,230	198,898	123,757	129,773	22,319	9,742	1,347	1,188,536
Dairying	110,044	135,601	47,708	25,163	13,031	17,883	92	331	349,853
Poultry	21,837	28,192	5,570	1,589	3,253	1,773	216	206	62,636
Bee-farming(b)	851	989	135	804	643	85	..	8	3,515
Total, rural	*664,592*	*713,686*	*450,975*	*256,970*	*301,880*	*65,130*	*10,275*	*2,145*	*2,465,653*
Trapping(b)	5,096	5,421	1,401	830	662	346	68	..	13,824
Forestry(b)	32,342	32,434	13,590	9,693	11,965	13,837	358	384	114,603
Fishing and whaling(b)	8,555	3,797	5,588	5,294	15,683	2,747	61	..	41,725
Mining and quarrying	224,956	39,957	80,766	33,979	36,840	20,309	5,736	630	443,173
Total, non-rural	*270,949*	*81,609*	*101,345*	*49,797*	*65,150*	*37,239*	*6,223*	*1,014*	*613,325*
Total, all primary	*935,541*	*795,296*	*552,320*	*306,767*	*367,030*	*102,370*	*16,498*	*3,159*	*3,078,978*
Factories(c)	2,693,265	2,027,685	542,996	527,477	288,803	170,606	7,103	17,418	6,275,355
Grand total	**3,628,806**	**2,822,981**	**1,095,316**	**834,244**	**655,833**	**272,976**	**23,601**	**20,577**	**9,354,333**

(a) *See* letterpress on page 1207. (b) Local value. (c) Net value.

NET(*a*) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES PER HEAD OF POPULATION, STATES, 1965-66

($)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia (*b*)
Agriculture	41.72	63.50	120.59	98.03	188.10	62.45	75.24
Pastoral	84.80	108.47	120.73	114.82	157.30	60.42	103.86
Dairying	26.18	42.48	28.96	23.35	15.80	48.41	30.57
Poultry	5.19	8.83	3.38	1.47	3.94	4.80	5.47
Bee-farming(*c*)	0.20	0.31	0.08	0.75	0.78	0.23	0.31
Total, rural	*158.09*	*223.60*	*273.74*	*238.42*	*365.92*	*176.31*	*215.45*
Trapping(*c*)	1.21	1.70	0.85	0.77	0.80	0.94	1.21
Forestry(*c*)	7.69	10.16	8.25	8.99	14.50	37.46	10.01
Fishing and whaling(*c*)	2.04	1.19	3.39	4.91	19.01	7.44	3.65
Mining and quarrying	53.51	12.52	49.02	31.53	44.66	54.98	38.72
Total, non-rural	*64.45*	*25.57*	*61.52*	*46.20*	*78.97*	*100.81*	*53.59*
Total, all primary	*222.54*	*249.17*	*335.25*	*284.62*	*444.89*	*277.12*	*269.04*
Factories	640.66	635.27	329.59	489.39	350.07	461.85	548.34
Grand total	**863.20**	**884.44**	**664.84**	**774.01**	**794.96**	**738.97**	**817.38**

(*a*) *See* letterpress on page 1207. (*b*) Includes Northern Territory and Australian Capital Territory. (*c*) Local value.

NET(*a*) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES: AUSTRALIA, 1961-62 TO 1965-66

($'000)

Industry	1961–62	1962–63	1963–64	1964–65	1965–66
Agriculture	733,006	830,414	917,388	975,164	861,115
Pastoral	962,676	1,078,698	1,340,578	1,221,300	1,188.536
Dairying	272,994	307,358	330,218	360,737	349,853
Poultry	49,744	52,836	61,508	50,916	62,636
Bee-farming(*b*)	3,226	2,990	5,144	4,118	3,515
Total, rural	*2,021,646*	*2,272,296*	*2,654,836*	*2,612,235*	*2,465,653*
Trapping(*b*)	11,776	11,416	13,364	13,060	13,824
Forestry(*b*)	95,236	96,102	102,624	111,139	114,603
Fishing and whaling(*b*)	28,588	30,622	31,684	38,685	41,725
Mining and quarrying	274,490	291,028	325,596	397,822	443,173
Total, non-rural	*410,090*	*429,168*	*473,268*	*560,703*	*613,325*
Total, all primary	*2,431,736*	*2,701,464*	*3,128,104*	*3,172,938*	*3,078,978*
Factories(*c*)	4,394,635	4,795,241	5,270,003	5,896,754	6,275,355
Grand total	**6,826,371**	**7,496,705**	**8,398,108**	**9,069,692**	**9,354,333**

(*a*) *See* letterpress on page 1207. (*b*) Local value. (*c*) Excludes Northern Territory and Australian Capital Territory prior to 1964–65.

Indexes of farm production

In the first two tables in this section indexes of price and quantum (i.e. value at constant prices) of production are given for the following industrial groups: Agriculture, Pastoral, Dairying, poultry and bee-farming, and All farming combined (including separate indexes for Wool and Products other than wool). In the third table indexes of quantum (i.e. value at constant prices) of production, exports and consumption of farm products for food use are shown.

Farm production price indexes

The farm production price indexes shown in the following table relate to average 'prices' of agricultural, pastoral, dairying, poultry and bee-farming products realised at the principal markets of Australia. The 'price' data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year, and the index numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc. of products marketed. The index numbers for any year relate to the average values of products produced or marketed in that year irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. 'Prices' for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index Numbers the average quantities of the relevant commodities *produced* in the period 1923–24 to 1927–28 were used as fixed weights. This series, re-computed to the base average 1936–37 to 1938–39 = 100, was published in earlier issues of the Year Book (*see* No. 43, page 1050). For 1936–37 and later years the original series was replaced in December 1952 by a revised series in which average quantities of each product *marketed* during the period 1946–47 to 1950–51 were used as fixed weights. In the revised series the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All farming index of quantities of crops marketed for livestock feeding in Australia.

FARM PRODUCTION: INDEXES OF PRICES AT PRINCIPAL MARKETS, AUSTRALIA 1951–52 TO 1965–66

(*Base: Average of* 3 *years ended June* 1939 = 100)

Year	Agri-culture	Pastoral	Dairying, poultry and bee-farming	All farming	Wool (shorn and dead)	Products other than wool
1951–52 . . .	355	501	332	410	552	363
1952–53 . . .	364	531	387	440	623	379
1953–54 . . .	324	534	395	429	621	365
1954–55 . . .	316	489	371	401	540	355
1955–56 . . .	330	451	392	397	468	373
1956–57 . . .	336	536	386	432	607	374
1957–58 . . .	336	435	382	388	473	359
1958–59 . . .	322	396	386	369	370	369
1959–60 . . .	329	464	402	403	440	391
1960–61 . . .	349	443	402	401	397	403
1961–62 . . .	348	421	373	385	412	376
1962–63 . . .	334	450	388	396	449	378
1963–64 . . .	351	511	402	431	531	398
1964–65 . . .	351	460	423	415	437	408
1965–66 . . .	354	501	422	431	458	423

Indexes of quantum (i.e. value at constant prices) of farm production

The indexes shown in the following table relate to gross output of farm products valued at constant prices. They have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the base years.

In the original published series the period 1923–24 to 1927–28 was adopted as the base for revaluing each farm product. This series, re-computed to the base: average 1936–37 to 1938–39 = 100, was published in earlier issues of the Year Book (*see* No. 43 page 1051). For 1936–37 and later years the original series was replaced in December 1952 by a revised series in which average unit values for the period 1936–37 to 1938–39 were used. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All farming index, of quantities of crops fed to livestock in Australia.

INDEXES OF QUANTUM(*a*) OF FARM PRODUCTION: AUSTRALIA 1951–52 TO 1965–66

(*Base: Average of* 3 *years ended June* 1939 = 100)

Year	Agri-culture	Pastoral	Dairying, poultry and bee-farming	All farming	Wool (shorn and dead)	Products other than wool
1951–52	103	105	97	103	112	100
1952–53	121	126	108	121	131	118
1953–54	129	123	107	122	128	120
1954–55	120	127	117	123	132	120
1955–56	134	136	120	131	146	127
1956–57	120	148	117	131	164	121
1957–58	109	142	114	124	148	116
1958–59	165	159	119	149	164	145
1959–60	140	163	123	144	172	136
1960–61	177	152	120	152	165	148
1961–62	163	160	128	155	174	150
1962–63	191	163	129	166	170	165
1963–64	196	172	131	174	183	171
1964–65	218	172	136	181	183	180
1965–66	184	163	138	166	169	165

(*a*) Indexes of value at constant prices, i.e. quantities revalued at average unit values for the base years (*see* text preceding table).

Farm products for food use: indexes of quantum (i.e. value at constant prices) of production, exports and consumption

The indexes shown in the following table have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the years 1936–37 to 1938–39. The items included comprise products in the form in which they are sold from farms in all cases except livestock sold for slaughter for meat, which are included in terms of dressed carcass weight of meat. Quantity data relating to exports include exports of processed food in terms of farm product equivalent. The indexes of production relate basically to gross output of farm products for food use, including crops exported for stock-feeding overseas.

FARM PRODUCTS FOR FOOD USE: INDEXES OF QUANTUM(*a*) OF PRODUCTION, EXPORTS AND CONSUMPTION AUSTRALIA, 1951–52 TO 1965–66

(*Base: average of* 3 *years ended June* 1939 = 100)

Year	Production		Exports		Consumption in Australia	
	Total	Per head of total population	Total	Per head of total population	Total	Per head of total population
1951–52	100	81	70	57	119	96
1952–53	118	93	113	89	119	94
1953–54	122	94	102	79	124	96
1954–55	121	91	117	89	127	96
1955–56	129	95	131	97	131	97
1956–57	123	88	118	85	136	98
1957–58	115	81	90	64	139	98
1958–59	146	101	137	94	142	98
1959–60	138	93	132	89	145	98
1960–61	148	98	170	112	143	95
1961–62	154	99	161	104	150	97
1962–63	168	107	187	119	154	98
1963–64	175	109	207	129	159	99
1964–65	185	113	219	134	163	100
1965–66p	167	100	179	108	162	97

(*a*) Indexes of value at constant prices, i.e. quantities revalued at average unit values for the base years (*see* text preceding table).

Consumption of foodstuffs and beverages

Quantities consumed

The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from the sum of production and imports and allowing for recorded movements in stocks of the respective commodities. While the estimates may be generally accepted as being reasonably accurate, there are some deficiencies to which attention should be directed. These relate chiefly to the quantities of poultry, fish, rabbits and hares and the quantities of certain oils and fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc. which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at 'producer' level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years wastage of foodstuffs has possibly been less than previously because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by production by householders for their own requirements. In most cases broad estimates of non-commercial (householders') production have been made. Except in a few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. It is felt that the foregoing deficiencies do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs and beverages is contained in the statistical bulletin: *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia,* issued by this Bureau.

The following tables show the average annual consumption during the three-year periods ended 1938–39, 1948–49 and 1958–59, together with the data for each of the years 1963–64, 1964–65 and 1965–66.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA, 1936-37 TO 1965-66

Commodity		Average three years ended—			1963–64	1964–65	1965–66 p
		1938–39	1948–49	1958–59			
Milk and milk products—							
Fluid whole milk	mill. gal	161	233	276	311	327	330
Fresh cream	'000 tons	19.7	5.1	8.7	9.8	10.0	10.2
Condensed, concentrated and evaporated milk—							
Full cream—							
Sweetened	"	13.2	11.9	11.3	11.9	10.8	12.0
Unsweetened	"		13.6	27.6	(*a*) 33.1	(*a*) 34 0	(*a*) 35.4
Skim	"	n.a.	n.a.	5.6	11.5	9.8	9.7
Powdered milk—							
Full cream	"	8.1	11.0	11.0	11.7	12 2	10.2
Skim	"	..	1.9	10.7	(*b*) 34.2	(*b*) 32 9	(*b*) 39.1
Infants' and invalids' foods	"	3.0	4.3	9.4	13.6	15 4	16.4
Cheese	"	13.4	18.8	25.0	35.6	37.8	40.7
Total milk and milk products (in terms of milk solids)	"	*120.5*	*167.4*	*212.4*	*266.4*	*278.0*	*281.6*
Meat—							
Beef and veal (carcass weight)	"	430.3	372.7	538.4	515.0	502.2	476.3
Mutton " "	"	184.1	154.0	221.6	237.8	232 2	236.3
Lamb " "	"	46.0	86.1	127.7	205.1	197.3	189.2
Pigmeat " "	"	26.2	24.3	43.6	56.7	59 7	69.0
Offal	"	25.7	30.3	49.7	63.4	62 0	58.3
Canned meat (canned weight)	"	6.5	9.0	17.9	21.1	23.0	23.3
Bacon and ham (cured carcass weight)	"	31.5	39.9	30.5	36.1	37.9	39.0
Total meat (in terms of carcass equivalent weight)	"	*769.9*	*736.9*	*1,054.1*	*1,158.4*	*1,136.5*	*1,112.8*
Poultry, fish, rabbits and hares—							
Poultry, rabbits and hares (dressed weight)	"	n.a.	n.a.	n.a.	n.a.	67.6	80.6
Fish (edible weight)—							
Fresh—							
Australian origin	"	19.7	19.4	13.8	16.3	15.9	16.9
Imported	"			9.0	15.4	15.1	19.4
Cured (including smoked and salted)	"			3.8	4.7	3.8	4.8
Crustaceans and molluscs	"	2.1	2.1	3.8	6 0	7 6	7.3
Canned—Australian origin	"	12.4	10.5	3.3	3 8	5.1	5.6
Imported	"			7.4	11.5	11.8	12.2
Total poultry, fish, rabbits and hares (edible weight)	"	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*98.3*	*112.7*
Eggs and egg products (in terms of eggs in shell)—							
Eggs in shell	"	78.7	86.5	92.1	(*c*)123 0	(*c*)126.4	(*c*)130.9
Egg pulp	"	2.9	8.6	5.7	(*c*) 7.7	(*c*) 7.8	(*c*) 7.7
Egg powder	"	..	..	0.2	(*c*) 0.6	(*c*) 0.8	(*c*) 0.6
Total eggs and egg products	" mill. doz	*81.6* *139.3*	*95.1* *162.3*	*98.0* *167.3*	(*c*)*131.3* *196.0*	(*c*)*135.0* *201.6*	(*c*)*139.2* *207.9*
Fats and oils—							
Butter	'000 tons	101.4	84.7	118.4	115.1	113.2	111.6
Margarine—							
Table	"	2 8	3.0	n.a.	n.a.	22 6	23.6
Other	"	12.2	18.7	21.2	32.2	30.8	30.2
Vegetable oils and other fats	"	19.6	18.0	19.6	22.1	22.6	23.0
Total fats and oils (fat content)	"	*115.5*	*105.5*	*n.a.*	*n.a.*	*161.8*	*161.3*

For footnotes *see* next page.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA, 1936–37 TO 1965–66—*continued*

Commodity		Average three years ended—			1963–64	1964–65	1965–66 p
		1938–39	1948–49	1958–59			
Sugar and syrups—							
Refined sugar—							
As sugar	'000 tons	216.5	234.6	259.0	262.6	261.2	258.7
In manufactured products	,,	110.1	174.2	226.1	274.1	294.5	309.9
Honey, glucose and syrups (sugar content)	,,	17.3	19.1	22.8	30.9	36.5	35.7
Total sugar and syrups (sugar content)	,,	*343.9*	*427.9*	*507.9*	*567.7*	*592.3*	*604.4*
Pulse and nuts—							
Dried pulse	,,	4.5	7.4	11.1	14.8	16.5	18.4
Peanuts (weight without shell)	,,	2.8	8.7	7.2	9.4	9.8	9.4
Edible tree nuts (weight without shell)	,,	2.6	4.4	6.7	10.0	10.5	10.0
Cocoa (raw beans)	,,	6.3	11.6	12.1	13.9	22.6	17.8
Total pulse and nuts	,,	*16.2*	*32.1*	*37.1*	*48.1*	*59.4*	*55.6*
Fruit—							
Citrus fruit(*d*)	,,	97.8	127.2	153.8	208.8	255.8	214.5
Other fresh fruit	,,	288.2	297.5	341.4	453.6	392.3	452.5
Jams	,,	35.1	42.5	37.5	39.2	38.9	38.5
Dried fruit	,,	24.8	30.0	26.4	25.4	36.4	37.6
Canned fruit	,,	31.9	37.3	59.4	92.0	98.9	106.2
Total fruit (fresh fruit equivalent)	,,	*532.3*	*607.9*	*691.4*	*895.4*	*937.3*	*964.5*
Vegetables—							
Leafy and green vegetables	,,	n.a.	154.0	172.1	212.5	232.2	227.5
Tomatoes(*d*)	,,	(*e*) 48.0	86.3	124.4	143.3	157.3	158.9
Root and bulb vegetables	,,	n.a.	143.7	152.8	159.9	175.3	180.5
Potatoes—							
White	,,	318.5	424.3	495.4	508.1	465.3	575.1
Sweet	,,	7.4	5.3	6.1	6.9	7.0	7.2
Other vegetables	,,	n.a.	162.8	178.4	181.2	187.8	193.6
Total vegetables	,,	*n.a.*	*976.4*	*1,129.2*	*1,211.9*	*1,224.8*	*1,342.7*
Grain products—							
Flour (including wheatmeal for baking and sharps)	,,	574.0	689.7	789.1	849.1	851.4	880.1
Breakfast foods	,,	32.5	45.8	58.8	69.2	71.7	76.1
Rice (milled)	,,	12.2	3.0	n.a.	20.5	21.3	25.2
Tapioca, sago, etc.	,,	3.7	2.3	1.4	1.0	0.9	0.9
Pearl barley	,,	3.0	1.7	2.0	1.6	1.5	1.6
Total grain products(f)	,,	*629.7*	*747.4*	*n.a.*	*941.4*	*946.8*	*983.9*
Beverages—							
Tea	,,	21.1	22.1	26.1	28.0	28.8	28.5
Coffee(*g*)	,,	2.0	3.4	5.9	10.7	12.0	11.3
Beer	mill. gal	80.1	129.5	221.0	259.2	272.6	278.5
Wine	,,	4.2	9.8	11.1	13.4	13.8	15.3
Spirits	mill. pf gal	1.5	2.4	2.8	3.7	4.1	3.7

(*a*) Includes ice cream mixes. (*b*) Includes buttermilk and mixed skim and buttermilk. (*c*) Not comparable with data prior to 1960–61, in which year the average weight of an egg was altered in calculations from 1.75 oz to 2 oz. (*d*) Includes fresh equivalent of manufactured products. (*e*) Probably understated owing to lack of complete data. (*f*) Includes an allowance for cornflour up to and including 1948–49. (*g*) Coffee and coffee products in terms of processed whole or ground pure coffee.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA 1936-37 TO 1965-66

Commodity		Average three years ended—			1963–64	1964–65	1965–66 p
		1938–39	1948–49	1958–59			
Milk and milk products—							
Fluid whole milk	gallons	23.4	30.5	28.3	28.2	29.1	28.8
Fresh cream	lb	6.1	1.5	2.0	2.0	2.0	2.0
Condensed, concentrated and evaporated milk—							
Full cream—							
Sweetened	,,	4.3	3.5	2.6	2.4	2.2	2.4
Unsweetened	,,		4.0	6.4	(a) 6.6	(a) 6.8	(a) 6.9
Skim	,,	n.a.	n.a.	1.3	2.4	2.0	1.9
Powdered milk—							
Full cream	,,	2.6	3.2	2.5	2.4	2.4	2.0
Skim	,,	..	0.6	2.5	(b) 7.0	(b) 6.6	(b) 7.6
Infants' and invalids' foods	,,	1.0	1.3	2.2	2.8	3.1	3.2
Cheese	,,	4.4	5.5	5.7	7.3	7.5	8.0
Total milk and milk products (in terms of milk solids)	,,	*39.3*	*49.1*	*48.7*	*54.3*	*55.5*	*55.3*
Meat—							
Beef and veal (carcass weight)	,,	140.3	109.1	123.8	104.8	100.2	93.2
Mutton ,, ,,	,,	60.0	45.1	51.0	48.4	46.3	46.3
Lamb ,, ,,	,,	15.0	25.2	29.3	41.7	39.3	37.0
Pigmeat ,, ,,	,,	8.5	7.1	10.1	11.5	11.9	13.5
Offal	,,	8.4	8.9	11.4	12.9	12.4	11.4
Canned meat (canned weight)	,,	2.1	2.6	4.1	4.3	4.6	4.6
Bacon and ham (cured carcass weight)	,,	10.2	11.7	7.1	7.3	7.6	7.6
Total meat (in terms of carcass equivalent weight)	,,	*250.9*	*215.7*	*242.4*	*235.7*	*226.8*	*217.8*
Poultry, fish, rabbits and hares—							
Poultry, rabbits and hares (dressed weight)	,,	n.a.	n.a.	n.a.	n.a.	13.5	15.8
Fish (edible weight)—							
Fresh—							
Australian origin	,,	6.4	5.7	3.2	3.3	3.2	3.3
Imported	,,			2.1	3.1	3.0	3.8
Cured (including smoked and salted)	,,			0.9	1.0	0.7	0.9
Crustaceans and molluscs	,,	0.7	0.6	0.9	1.2	1.5	1.5
Canned—							
Australian origin	,,	4.1	3.0	0.8	0.8	1.0	1.1
Imported	,,			1.7	2.3	2.4	2.4
Total poultry, fish, rabbits and hares (edible weight)	,,	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*19.3*	*22.2*
Eggs and egg products (in terms of eggs in shell)—							
Eggs in shell	,,	25.7	25.4	21.2	(c) 25.0	(c) 25.2	(c) 25.6
Egg pulp	,,	0.9	2.5	1.3	(c) 1.6	(c) 1.5	(c) 1.5
Egg powder	,,	..	..	..	(c) 0.1	(c) 0.2	(c) 0.1
Total eggs and egg products	,,	*26.6*	*27.9*	*22.5*	(c) *26.7*	(c) *26.9*	(c) *27.3*
	no	*243*	*255*	*206*	*214*	*216*	*218*
Fats and oils—							
Butter	lb	32.9	24.8	27.2	23.4	22.6	21.8
Margarine—							
Table	,,	0.9	0.9	n.a.	n.a.	4.5	4.6
Other	,,	4.0	5.2	4.9	6.6	6.2	5.9
Vegetable oils and other fats	,,	6.4	5.3	4.5	4.5	4.5	4.5
Total fats and oils (fat content)	,,	*37.6*	*30.9*	*n.a.*	*n.a.*	*32.3*	*31.5*
Sugar and syrups—							
Refined sugar—							
As sugar	,,	70.6	68.7	59.6	53.4	52.1	50.6
In manufactured products	,,	35.9	51.0	52.0	55.8	58.8	60.7
Honey, glucose and syrups (sugar content)	,,	5.5	5.6	5.2	6.3	7.4	7.0
Total sugar and syrups (sugar content)	,,	*112.0*	*125.3*	*116.8*	*115.5*	*118.3*	*118.3*

For footnotes *see* next page.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA 1936–37 TO 1965–66—*continued*

Commodity		Average three years ended—			1963–64	1964–65	1965–66 p
		1938–39	1948–49	1958–59			
Pulse and nuts—							
Dried pulse	lb	1.5	2.1	2.6	3.0	3.3	3.6
Peanuts (weight without shell)	"	0.9	2.5	1.7	1.9	1.9	1.8
Edible tree nuts (weight without shell)	"	0.8	1.3	1.5	2.0	2.1	2.0
Cocoa (raw beans)	"	2.1	3.4	2.8	2.8	4.5	3.5
Total pulse and nuts	"	*5.3*	*9.3*	*8.6*	*9.7*	*11.8*	*10.9*
Fruit—							
Citrus fruit(*d*)	"	31.9	37.2	35.4	42.5	51.1	42.0
Other fresh fruit	"	94.0	87.1	78.4	92.3	78.3	88.6
Jams	"	11.4	12.4	8.6	8.0	7.8	7.5
Dried fruit	"	8.1	8.7	6.0	5.2	7.3	7.3
Canned fruit	"	10.4	11.0	13.6	18.7	19.7	20.8
Total fruit (fresh fruit equivalent)	"	*173.6*	*178.0*	*157.6*	*182.2*	*187.0*	*188.8*
Vegetables—							
Leafy and green vegetables	"	n.a.	45.1	39.5	43.2	46.3	44.5
Tomatoes(*d*)	"	(*e*) 15.7	25.3	28.6	29.2	31.4	31.1
Root and bulb vegetables	"	n.a.	42.1	35.1	32.5	35.0	35.3
Potatoes—							
White	"	103.8	124.2	113.9	103.4	92.8	112.6
Sweet	"	2.4	1.5	1.4	1.4	1.4	1.4
Other vegetables	"	n.a.	47.7	41.0	36.9	37.5	38.0
Total vegetables	"	n.a.	*285.9*	*259.5*	*246.6*	*244.4*	*262.8*
Grain products—							
Flour (including wheatmeal for baking and sharps)	"	187.1	201.9	181.5	172.7	169.9	172.3
Breakfast foods	"	10.6	13.4	13.5	14.1	14.4	14.9
Rice (milled)	"	4.0	0.9	n.a.	4.2	4.3	4.9
Tapioca, sago, etc.	"	1.2	0.7	0.3	0.2	0.2	0.2
Pearl barley	"	1.0	0.5	0.4	0.3	0.3	0.3
Total grain products(f)	"	*205.3*	*218.8*	*n.a.*	*191.5*	*189.1*	*192.6*
Beverages—							
Tea	"	6.9	6.5	6.0	5.7	5.8	5.6
Coffee(*g*)	"	0.6	1.0	1.3	2.2	2.4	2.2
Beer	gallons	11.7	16.9	22.7	23.5	24.3	24.3
Wine	"	0.6	1.3	1.1	1.2	1.2	1.3
Spirits	pf gal	0.2	0.3	0.3	0.3	0.4	0.3

(*a*) Includes ice cream mixes. (*b*) Includes buttermilk and mixed skim and buttermilk. (*c*) Not comparable with data prior to 1960–61, in which year the average weight of an egg was altered in calculations from 1.75 oz to 2 oz. (*d*) Includes fresh equivalent of manufactured products. (*e*) Probably understated owing to lack of complete data. (*f*) Includes an allowance for cornflour up to and including 1948–49. (*g*) Coffee and coffee products in terms of processed whole or ground pure coffee.

Level of nutrient intake

The next table shows details of the estimated supplies of nutrients available for consumption in Australia during the three years 1963–64 to 1965–66 in comparison with the annual averages for the three-year periods ended 1938–39, 1948–49 and 1958–59. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

PLATE 59

Opening session of 36th Session of the International Statistical Institute, 29 August 1967.
Sir Harry Campion, C.B., C.B.E., delivering presidential address.

AUSTRALIA
COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
PAPUA & NEW GUINEA

PLATE 60

Statistical exhibition at 36th Session of the International Statistical Institute.

ESTIMATED SUPPLY OF NUTRIENTS AVAILABLE FOR CONSUMPTION AUSTRALIA, 1936-37 TO 1965-66

(Per head per day)

Nutrient		Average three years ended—			1963–64	1964–65	1965–66 p
		1938–39	1948–49	1958–59			
Calories	no	3,117	3,245	3,297	3,287	3,251	3,274
Protein—							
Animal	gm	58.7	57.4	59.6	61.5	60.0	61.6
Vegetable	"	30.9	35.3	32.3	31.4	31.3	32.5
Total	"	89.6	92.7	91.9	92.9	91.3	94.1
Fat	"	133.5	121.7	131.7	131.7	129.5	127.7
Carbohydrate	"	377.4	424.8	416.7	411.9	410.8	420.4
Calcium	mgm	642	785	817	903	909	885
Iron	"	15.4	15.1	14.0	14.2	13.9	14.2
Vitamin A	I.U.	4,905	4,630	4,568	4,236	4,330	4,368
Ascorbic acid	mgm	86	96	89	88	97	94
Thiamine	"	1.4	1.5	1.3	1.3	1.3	1.3
Riboflavin	"	1.7	1.9	1.8	2.0	2.0	1.9
Niacin	"	18.7	17.6	18.6	18.6	18.3	18.8

Retail trade

The statistics in this section relate to retail establishments throughout Australia and the value of retail sales of goods by these establishments.

Information of this nature was first collected in respect of the year ended 30 June 1948 by a full census of all retail establishments. As this was the first census of its type in Australia, its scope and the data sought were the minima consistent with the objective of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods, and a simple commodity dissection, together with a record of the value of certain services provided. This census was followed by a second census of all retail establishments trading during the year ended 30 June 1949.

Further censuses were taken in respect of the years ended 30 June 1953 and 1957. In these censuses retailers were asked to furnish more detailed information concerning the dissection of their turnover into commodity groups, and questions were asked about stocks of goods on hand, the number of persons engaged in retail activities, and credit sales. In addition, the 1956–57 census included questions relating to purchases, customers' indebtedness and type of organisation.

The most recent census was taken in respect of the year ended 30 June 1962, and results have been published for all States and Australia. With the exception of some modifications to the scope of the collection (*see* hereunder), the 1961–62 census followed the same general principles adopted for the previous census.

In general terms the census covered the retail trading activities of establishments which normally sell goods by retail to the general public from fixed premises (i.e. shops, rooms, kiosks, and yards). Retail activities of wholesalers and manufacturers were included if they sold regularly by retail to the general public. Sales by itinerant vendors (e.g. hawkers, street sellers, etc.) and sales from casual stalls or booths were excluded. Organisations such as clubs and societies making sales to their own members were excluded from the main census collection, but a supplementary collection was made, covering sales by *licensed* clubs.

In general, establishments with retail sales of goods amounting to less than $1,000 in the census year are not included in the census tabulations. However, some 'service' establishments with retail sales of less than $1,000, but with takings of $1,000 or more from repairs, meals or hairdressing were included in the main census collection, and details of these establishments are included in tables in Year Book No. 50, page 1244. The types of establishments in this category are boot repairers, repair-only garages, cafés and restaurants, and hairdressers.

The design of the census is such that particulars of retail sales relate principally to sales to the final consumer of new and second-hand goods generally used for household and personal purposes. For this reason, sales of building materials, farm and industrial machinery and equipment, earth-moving equipment, etc. have been excluded from the censuses. For the same reason, and also because of difficulties in obtaining reliable and complete reporting, sales of builders' hardware and supplies, business machines and equipment, grain, feed, fertiliser and agricultural supplies, and tractors were excluded from the 1961–62 census. Retail sales of motor vehicles, parts, etc. have been included, whether for industrial, commercial, farm, or private use.

During the period between censuses variations in the value of retail sales have been measured by means of quarterly sample surveys. Annual totals derived from these surveys, adjusted to a basis comparable in scope with the 1961–62 census, and some of the results of the 1961–62 census, are included in this section.

Year Book No. 50, pages 1239–45, contains details of the number of retail establishments, the values of retail sales and of retail stocks, and particulars of hairdressing, boot repairing and motor repairing establishments, restaurants, self-service stores and licensed clubs, for each State and Territory, from the results of the 1961–62 census. Major classifications are by commodity groups and type of business. More complete details are set out in published bulletins of the 1961–62 Census of Retail Establishments. (*See* page 1223).

Value of retail sales in each commodity group, Australia

The following table shows the value of retail sales of goods in each of the commodity groups specified in the years 1961–62 to 1965–66 on a comparable basis throughout. The figures for the year 1961–62 were obtained from the census, whereas figures for the other years shown are estimates based on sample surveys.

VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA(*a*)
1961–62 TO 1965–66

($ million)

Commodity group	1961–62	1962–63	1963–64	1964–65	1965–66
Groceries	858.3	892.7	941.5	1,018.3	1,095.4
Butchers' meat	422.3	444.6	467.4	506.8	543.5
Other food(*b*)	729.9	765.2	794.8	846.1	889.4
Total, food and groceries	*2,010.5*	*2,102.5*	*2,203.7*	*2,371.2*	*2,528.3*
Beer, wine and spirits(*c*)	545.9	574.2	592.6	630.0	682.5
Clothing and drapery	900.0	929.6	1,012.8	1,075.5	1,114.2
Footwear	154.7	162.4	171.6	178.0	181.7
Hardware, china and glassware(*d*)	146.0	155.0	154.9	164.4	165.4
Electrical goods(*e*)	348.0	367.0	388.5	412.5	397.9
Furniture and floor coverings	230.1	245.0	272.0	300.7	307.3
Chemists' goods	265.8	284.1	307.2	336.3	364.8
Newspapers, books and stationery	166.4	172.8	191.4	203.7	213.6
Other goods(*f*)	489.7	519.3	556.7	598.4	635.1
Total (excluding motor vehicles, etc.)	**5,257.1**	**5,511.9**	**5,851.4**	**6,270.7**	**6,590.8**
Motor vehicles, parts, petrol, etc.(*g*)	1,603.2	1,985.6	2,180.2	2,327.8	2,289.2

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread. (*c*) Excludes sales made by licensed clubs. (*d*) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (*e*) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (*f*) Includes tobacco, cigarettes, etc., jewellery, sporting goods, etc., but excludes grain and produce and business machines. (*g*) Includes new and used motor vehicles, parts, petrol, etc., but excludes tractors, farm machinery and implements, earth-moving equipment, etc.

Total value of retail sales, States

The following tables show the totals, excluding motor vehicles, etc., and totals, motor vehicles, parts, petrol, etc. dissected according to States.

TOTAL VALUE OF RETAIL SALES (EXCLUDING MOTOR VEHICLES, PARTS PETROL, ETC.) STATES, 1961–62 TO 1965–66

($ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
1961–62 . .	2,060.4	1,517.1	701.6	451.6	360.3	166.1	5,257.1
1962–63 . .	2,157.7	1,585.2	738.2	479.8	377.9	173.1	5,511.9
1963–64 . .	2,248.9	1,694.8	800.1	523.7	404.0	179.9	5,851.4
1964–65 . .	2,386.0	1,822.0	859.6	571.6	440.3	191.2	6,270.7
1965–66 . .	2,492.6	1,914.9	901.9	597.8	484.7	198.9	6,590.8

(*a*) Excludes Northern Territory and Australian Capital Territory.

TOTAL VALUE OF RETAIL SALES OF MOTOR VEHICLES, PARTS, PETROL ETC., STATES, 1961–62 TO 1965–66

($ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(*a*)
1961–62 . .	623.1	431.2	218.0	143.1	133.9	53.9	1,603.2
1962–63 . .	777.6	525.1	279.5	180.5	159.8	63.1	1,985.6
1963–64 . .	827.8	575.7	326.5	210.9	168.9	70.4	2,180.2
1964–65 . .	866.7	629.2	352.3	235.6	168.7	75.3	2,327.8
1965–66 . .	847.6	624.7	343.6	216.8	179.5	77.0	2,289.2

(*a*) Excludes Northern Territory and Australian Capital Territory.

Interstate trade

Prior to the federation of the Australian Colonies (now States) each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (section 93). On the expiry of the 'book-keeping' period these records were discontinued as from 13 September 1910, and the last published statements were for the year 1909. Later, the Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States. A detailed collection for Queensland was re-introduced from July 1953.

At the Conference of Statisticians held in January 1928 it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities. Complete interstate trade statistics are now published in detail for Queensland, Western Australia and Tasmania by the Deputy Commonwealth Statisticians in those States, and incomplete statistics, relating mainly to trade with Western Australia and Tasmania, by the Deputy Commonwealth Statisticians in the remaining States.

Statistical organisation in Australia

Information about the early development of Australian statistics, the creation of the Commonwealth Bureau of Census and Statistics and the integration of Commonwealth and State statistical services may be found in Year Book No. 51, pages 1247–8 and in earlier issues.

The Australian statistical organisation and its functions

The Commonwealth Bureau of Census and Statistics consists of the Central Office, located in Canberra, and the six State Offices each under the control of a Deputy Commonwealth Statistician. The Central Office is responsible for the overall planning and direction of the Bureau's work and for the collection, compilation and publication of statistics relating to (i) Australia and (ii) the States as components of Australian totals. The State Offices are responsible for providing statistics for both State and Commonwealth requirements. Collection activities are largely concentrated in the State Offices, which also engage in the compilation and publication of statistics on a State basis, together with intra-State analysis by divisions, local government areas, geographical areas, etc.

The Bureau produces statistics relating to all aspects of the economy and social condition of Australia—population, employment, primary and secondary industries, national accounts, public and private finance, retail and wholesale trade, overseas transactions, transport and communication, labour, wages and prices.

Research into the theory and practice of sampling, data processing, population projections, price and quantum indexes, seasonal adjustment, classification systems, and other methodological aspects is conducted on a continuing basis. Pilot input-output tables for 1958–59 have been compiled, and work is continuing on a comprehensive table for a more recent year. The extension of the scope of the Bureau's statistics and the integration of existing statistical collections so as to place them on a co-ordinated and mutually exclusive basis are other important aspects of research and development work.

A recent important extension of the Bureau's activities was given effect to by the publication in July 1967 of *Seasonally Adjusted Indicators* 1967.

This bulletin contains original and seasonally adjusted data in tabular and graphical form for forty-eight selected series of statistical indicators of Australian economic activity. The seasonal adjustment of these series is intended to serve as an aid in statistical interpretation and analysis. Later figures in these series, and other series to be seasonally adjusted, will be published in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and in other existing monthly and quarterly publications of this Bureau. The purposes of this publication are to provide a comprehensive long-term series and to give a detailed description of the methods used. It is intended that the bulletin be re-issued annually, following annual re-analyses of the series.

The seasonally adjusted series published in this bulletin were calculated by means of the Commonwealth Bureau of Census and Statistics Control Data Corporation 3600 Electronic Computer. Without powerful electronic computing equipment and expert programming services, it would not have been possible to carry out the elaborate seasonal analyses upon which these results are based. The basic computer programs employed are those of the United States Census Bureau Method II, X-11 Variant. The computer programs as originally supplied were amended in some minor respects and extended in various ways in order to adapt them to this Bureau's computer configuration and to meet particular operational requirements. By these means it was possible to systematise the extensive and intricate analyses which are needed in order to specify the particular variation of the seasonal adjustment method to be used for each series, and to assess the results obtained. It was also possible to present in the bulletin numerical data and graphs as automatic computer print-out for subsequent printing by a photo-reduction process. The graphs were produced by means of the Calcomp Digital Plotter installed in the Commonwealth Scientific and Industrial Research Organization Computer Centre in Canberra.

The economic interpretation of statistics and the use of models in economic analysis and forecasting is the responsibility of policy-making departments (including the Department of the Treasury and the Department of Trade and Industry). The Bureau provides these Departments with statistical information and expert statistical and methodological advice.

At the end of June 1967 the staff of the Bureau in its Central Office and six State Offices numbered approximately 2,600, of whom 1,150 were employed in the Central Office.

Nature of the Central Office of the Commonwealth Bureau of Census and Statistics

The Central Office of the Bureau is organised functionally into Branches (italic type) and Sections (roman type) dealing with specific fields of statistics or providing services for the Bureau as a whole. The organisational patterns of the State Offices are broadly similar, although local requirements have naturally given rise to differences in detail.

Population Census

Demography and Employment. Demographic and Social; Population Research; Employment and Field Surveys

Prices and Labour

Production, Distribution and Development. Primary Industry; Secondary Industry; Internal Trade and Development

Finance and Overseas Transactions. Balance of Payments; Overseas Trade and Shipping; Private Finance; Classification and Integration

National Accounts. National Income and Expenditure; Public Finance and Taxation; Inter-industry Accounts

Sampling and Methodology. Sampling; Methodology; Special Projects

Services. Establishments and Finance; Publications; Secretariat

The work of each Section is supervised by a Director. Each Director in turn is responsible to an Assistant Statistician whose principal function is to co-ordinate and direct the operations of several Sections.

During the past year the Bureau's Automatic Data Processing Branch has been re-organised and re-designated as the Computer Service Centre. The Centre is under the direction of a Director (who is responsible to the Commonwealth Statistician) and a Deputy Director, and is organised functionally into Sections. Each Section is supervised by a Principal Programmer.

Automatic Data Processing. Hardware Systems and Operations; Program Design; Analysis and Standards; Software Systems; Applications Systems.

Recruitment of statisticians

The demand by the Bureau for professionally qualified statisticians (i.e. graduates) is met in three principal ways. Firstly, the conditions under which persons are recruited to the Commonwealth Public Service ensure that the majority of junior appointees are qualified to matriculate, and the Bureau encourages these recruits in a variety of ways (e.g. free study time, payment of university fees, etc.) to pursue an appropriate university degree course on a part-time basis. A substantial number of the professional statisticians have, in fact, acquired their qualifications in this way. Secondly, the Bureau awards to high level matriculant students statistics cadetships, of four years duration, tenable at an Australian university and leading to an honours degree in economics, statistics and/or mathematics. The cadetship scheme also provides for one- and two-year cadetships for undergraduates who have demonstrated their ability to succeed with an appropriate university course. These undergraduate cadetships also lead to an honours degree in economics, statistics and/or mathematics. The third way in which the Bureau acquires professionally qualified staff is by direct recruitment of graduates who have had no attachment to the Bureau prior to completing their university degrees. Recruits from this source are predominantly the product of Australian universities, but in recent years a substantial number of overseas graduates, principally from United Kingdom universities, have joined the Bureau's staff.

Mechanical and electronic equipment

The Bureau possesses considerable experience in the use of mechanical equipment for data processing, having first installed punched-card machinery in 1921. It has recently installed a large scale high-speed digital computer network which is progressively superseding most of the existing mechanical tabulation equipment. The computer network comprises Control Data 3600 and 3300 computers in Canberra, 3300, 3200 and 160–A computers in both Sydney and Melbourne and 3200 computers in the other three mainland States with a full complement of peripheral devices including magnetic tape units, disk drives and remote inquiry stations. The computers are used to perform a wide range of accounting and administrative work for Government departments (notably the Department of the Treasury) in addition to normal statistical functions.

Relation of the Bureau to other Commonwealth Departments

The role of the Commonwealth Bureau of Census and Statistics relative to the compilation of statistics in other Commonwealth Departments is outlined in Year Book No. 51, page 1248.

Statistical and other official publications of Australia

The official statistical publications of Australia may be divided bibliographically into two main divisions, namely: (i) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only. Commonwealth publications containing statistics may be grouped under two heads, namely: (i) publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers. State publications may similarly be grouped into publications issued by the Deputy Commonwealth Statistician in each State and State Parliamentary and Departmental Reports and Papers. The statistics contained in the second group in each case are in the main incidental to the primary purpose of the particular report or paper.

Publications issued by the Commonwealth Statistician

Principal statistical publications. The following is a list of the principal statistical publications issued from the Central Office of the Commonwealth Bureau of Census and Statistics since its inauguration.

Australian Capital Territory Statistical Summary. Annually, 1963 to 1967.
Balance of Payments, Australia. Statements Nos 1 to 3, 1928–29 to 1951–52.
Banking and Currency. Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1965–66.
Causes of Death. Bulletin, annually, 1963 to 1965.
Census (1911) *Results.* Bulletins. Vols I (Statistician's Report), II and III, with Appendix *Mathematical Theory of Population.*
Census (1921) *Results.* Bulletins, Nos 1 to 26. Parts I to XVI, forming Vol. I, and Parts XVII to XXIX (Part XXVII, Life Tables), forming, with the Statistician's Report, Vol. II.
Census (1933) *Results.* Bulletins, Nos 1 to 25. Parts I to XIV, forming Vol. I, Parts XV to XXVIII, forming Vol. II, and Parts XXIX to XXXVII, forming, with the Statistician's Report and Australian Life Tables, 1932–1934, Vol. III.
Census (1947) *Results.* Bulletins, Nos 1 to 25. Parts I to XVI, forming Vol. I, Parts XVII to XIX, forming Vol. II, and Parts XX to XXVIII, forming with the Statistician's Report and Australian Life Tables, 1946–1948, Vol. III.

Census (1954) *Results*. Bulletins, Nos 1 to 3. Vols. I to VI, comprising respectively Parts I to V for each State; Vol VII, comprising Parts I to V for the Australian Territories; Vol. VIII, comprising Parts I to III for Australia, Australian Life Tables, 1953–1955, and the Statistician's Report.

Census (1961) *Results*. Vols I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; and Vol. VIII, comprising Parts I to III for Australia, Australian Life Tables, 1960–1962, and the Statistician's Report.

Census (1966) *Results*. Summarised results for each State and Territory and for Australia are being published in a series of mimeographed bulletins available from the Commonwealth Statistician (*see* page 1225).

**Conference of British Commonwealth Statisticians*, 1951, *Report of Proceedings*.

**Dairying Industry* (formerly *Summary of Dairying Industry*). Statistical Bulletin, monthly and half-yearly; first issue, September 1937.

Demography. Bulletin, annually, 1911 to 1965. Commencing 1963, excludes details of causes of death, *see Causes of Death*.

**Digest of Current Economic Statistics*. Monthly from August 1959 onward.

**Export Commodity Classification, Australian*. Annually, 1966–67 and 1967–68 (sectional revisions).

Exports, Australian. Annually, 1958–59 to 1966–67.

**Factories, Principal Statistics, Summary*. Annually, 1948–49 to 1965–66.

Finance. Bulletin, 1907 to 1960–61. Commencing 1955–56, issued in two parts—Part I, Public and Private Finance; Part II, Commonwealth Taxation. Commencing 1961–62, issued as five separate bulletins, *see* Banking, Finance (2), Insurance, and Taxation.

Finance, Commonwealth. Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1966–67.

Finance, State, Territory and Local Government Authorities', and Government Securities. Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1965–66.

**Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia, Report on*. Statistical Bulletin, half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1965–66.

**Fruit Growing Industry* (formerly *Summary of Fruit Growing Industry*). Statistical Bulletin, annually, 1944–45 to 1965–66.

**Import Commodity Classification, Australian*. Annually, 1965–66 to 1967–68 (sectional revisions).

Imports Cleared for Home Consumption. Annually, 1950–51 to 1966–67.

Insurance and Other Private Finance (*other than Banking and Currency*). Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1965–66.

Labour and Industrial Statistics. Memoranda and Reports, various, to 1922.

Labour Report. 1913 to 1965 and 1966 (combined issue).

Life Tables, Australian, 1901–1910. *Australian Joint Life Tables*, 1901–1910.

Life Tables, Australian, 1920–1922.

Life Tables, Australian, 1932–1934. *Australian Joint Life Tables*, 1932–1934.

Life Tables, Australian, 1946–1948.

Life Tables, Australian, 1953–1955.

Life Tables, Australian, 1960–1962.

**Livestock Numbers* (formerly *Summary of Livestock Statistics*). Statistical Bulletin, annually, 1943 to 1966.

Local Government in Australia. July 1919.

Manufacturing Industries. Bulletins on individual industries, annually, 1936–37 to 1939–40, 1940–41 (issue incomplete) and 1944–45 to 1965–66.†

Manufacturing Industry. Bulletin, annually, 1963–64 and 1964–65.

Manufacturing Commodities. Bulletin, annually, first issue 1963–64 and 1964–65 (in preparation).

‡*Mineral Industry, The Australian* (formerly *Minerals and Metals Bulletin*). Part 2—*Quarterly Statistics* of a quarterly bulletin issued jointly with the Bureau of Mineral Resources.

Monthly Review of Business Statistics. October 1937 onward.

Motor Vehicles, Census of, 31st December, 1955. Bulletins Nos 1 to 8.

Motor Vehicles, Census of, 31st December, 1962. Bulletins Nos 1 to 9.

Motor Vehicles, Survey of (1947–48), *Results*. Bulletins Nos 1 to 7.

National Accounts, Australian (*National Income and Expenditure*), 1948–49 to 1961–62, first issue, mimeographed*, to 1965–66.

§*Non-rural Primary Industries*. Bulletin, annually, first issue, 1964–65 (in preparation).

Non-rural Primary Industries and Value of Production. Bulletin, annually, 1962–63 and 1963–64. (Commencing 1964–65 issued as two separate Bulletins, *see Non-rural Primary Industries*, and *Value of Production*).

Northern Territory Statistical Summary. Annually, 1960 to 1967.

For footnotes *see* next page.

**Occupation Survey* (1945) *Results.* Detailed tables.

Official Year Book of the Commonwealth of Australia. 1907 to present issue (No. 53). Issues Nos 40 to 51 also published in parts.

Pocket Compendium of Australian Statistics (formerly *Statistical Digest*). 1913, 1914, 1916 and 1918 to 1967, annually.

Population and Vital Statistics. Bulletins and Reports, various, 1906–1910.

Primary Industries. Bulletins, annually, 1950–51 to 1961–62 in two parts—Part I, Rural Industries; Part II, Non-rural Industries and Value of Production. Commencing 1962–63, issued as two separate Bulletins, *see Rural Industries* and *Non-rural Primary Industries and Value of Production.*

Primary Industries, Australian. Report prepared for the Empire Producers Conference, Sydney, March 1938.

Production. Bulletin, annually, 1906 to 1949–50. From 1936–37 to 1949–50 issued in two parts—Part I, Secondary Industries; Part II, Primary Industries (including Total Recorded Production); thereafter separate Bulletins (*see Primary Industries* and *Secondary Industries*).

Professional Papers. Various. A full list appears in Official Year Book No. 13, page 3.

**Publications of the Commonwealth Bureau of Census and Statistics.* Annually (1964 to 1967 printed).

Quarterly Summary of Australian Statistics (replaced *Monthly Summary of Australian Statistics*). December 1917 onward.

**Retail Establishments, Census of* (1947–48), *Results.* Bulletins, Nos 1 to 7.

**Retail Establishments, Census of* (1948–49), *Results.* Bulletins, Nos 1 to 7.

**Retail Establishments, Census of* (1952–53), *Results.* Bulletins, Nos 1 to 14.

Retail Establishments, Census of (1956–57), *Results.* Bulletins, Nos 1 to 8 (mimeographed*) and 9 to 15 (printed).

Retail Establishments and Other Services, Census of (1961–62), *Results.* Bulletins Nos 1 to 7 (printed) and 8 and 9 (mimeographed*).

**Rural Holdings, Classification by Size and Type of Activity*, 1959–60. Bulletins, Nos 1 to 7.

Rural Holdings, Size Classification of, 1955–56. Bulletins Nos 1 to 7.

Rural Industries. Bulletin, annually, 1962–63 to 1964–65.

**Rural Land Use and Crop Production* (formerly *Summary of Crop Statistics*). Statistical Bulletin, annually, 1943–44 to 1965–66.

**Seasonally Adjusted Indicators.* Bulletin, annually, first issue 1967 (*see* page 1220).

Secondary Industries. Bulletin, annually, 1950–51 to 1962–63 (commencing 1960–61 issued in two parts—Part I, Factory and Building Operations; Part II, Materials Used and Articles Produced in Factories). Commencing 1963–64 issued as separate bulletins, *see Manufacturing Industry* and *Manufacturing Commodities.*

Social Insurance. Report to the Hon. the Minister for Trade and Customs, 1910.

Social Statistics. Bulletin, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service. Report to the Hon. the Minister for Home Affairs, 1910.

Taxation Assessments, Commonwealth. Annually, 1961–62 to 1965–66.

Trade, Overseas. Bulletin, annually, 1906 to 1966–67.

**Trade, Overseas.* Preliminary Bulletin, annually, 1952–53 to 1966–67, in two parts—Part 1, Exports; Part 2, Imports. (*See also Exports, Australian* and *Imports Cleared for Home Consumption.*)

Transport and Communication. Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually and 1932 to 1965–66 annually.

§*Value of Production.* Bulletin, annually, first issue, 1964–65.

Wealth. The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

**Wheat Industry* (formerly *Summary of the Wheat Situation*). Statistical Bulletin, periodically; first issue, July 1936.

**Wool Production and Utilisation.* Bulletin, annually, 1952–53 to 1965–66.

The foregoing list includes all the printed publications issued from the Bureau and certain more important mimeographed publications issued for the most part annually. Minor changes in the titles of several publications have not been referred to above. Copies of a number of these publications, particularly earlier issues, are not available.

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* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print *see* back pages of this volume.

† The series for 1965–66 comprises: Nos 1. Cement and Cement Goods, 2. Bricks, Tiles, Pottery and Earthenware, 3. Chemicals, Drugs and Medicines, 4. White Lead, Paints and Varnish, 5. Chemical Fertilisers, 6. Soap and Candles, 7. Basic Metal Industries, 8. Metal Fabricating Industries, 9. Motor Vehicles and Cycles, 10. Cotton Mills, 11. Woollen Mills, 12. Rope and Cordage, 13. Tanneries, 14. Boots and Shoes, 15. Clothing (including Hosiery and Knitted Goods), 16. Flour and Other Grain Mills, 17. Biscuits, 18. Confectionery, 19. Jam, Fruit, Vegetables, Pickles, Sauces, Condiments, etc., 20. Bacon Curing, 21. Butter, Cheese and Condensed, Concentrated, etc., Milk, 22. Aerated Waters and Cordials, 23. Meat and Fish Preserving, 24. Breweries, 25. Wineries and Distilleries, 26. Tobacco, Cigars and Cigarettes, 27. Sawmilling, 28. Pulp and Paper Making, 29. Rubber Works, 30. Brooms and Brushes, 31. Electric Light and Power Works, 32. Gas Works, 33. Plastic Moulding and Products, 34. Leather Goods (including Saddlery and Belting), 35. Printing and Stationery.

‡ Copies available from the Department of National Development in each capital city ($1 each).

§ Previously included in *Non-rural Primary Industries and Value of Production.*

Other statistical publications. Other mimeographed statements are distributed by the Commonwealth Statistician and deal with a wide variety of subjects, as follows.

Triennially. Tractors on Rural Holdings.

Annually. Agricultural Statistics (Preliminary); Australian National Accounts—Gross National Product at Current and Constant Prices (No. 1), Personal Income, by States (No. 2), Gross National Product at Factor Cost, by Industry (No. 3) (Preliminary Statements); Bee Farming; Consumption of Tea and Coffee; Factories, Principal Statistics of, by Class of Industry; Factory Products, Principal; Factory Production, Indexes of; Factory Production, Packaging and Associated Items; Factory Statistics, Australian Capital Territory; Factory Statistics, Northern Territory; Factory Statistics (Preliminary); Farm Machinery on Rural Holdings; Finance Companies; Fire, Marine and General Insurance; Fisheries (formerly Fishing and Whaling—also Preliminary); Fruit Statistics (Preliminary); Government Pension and Superannuation Schemes; Livestock Statistics (Preliminary); Minerals and Mineral Products; Mining and Quarrying (also Preliminary); Overseas Investment; Overseas Investment in Companies in Australia (Preliminary); Registered Building Societies, Registrations of New Motor Vehicles (also Preliminary); Rural Statistics of the Australian Capital Territory; Survey of Private Pension and Retiring Allowance Schemes; Survey of Retail Establishments, Australian Capital Territory; Survey of Retail Establishments, Northern Territory; Survey of Selected Large Private Pension Funds; Commonwealth, State and Territory Taxation Collections; Trade of Australia with Eastern Countries; University Statistics (also Preliminary); Value of Primary Production (Preliminary); Value of Production and Indexes of Price and Quantum of Farm Production; Wholesale Sales and Stocks of Wine and Brandy; Wool Production (Preliminary).

Half-yearly. Balance of Payments; Labour Turnover; Trade of Australia with the United Kingdom—no longer published separately, included in quarterly publication Overseas Trade—Major Groups of Countries; Minimum Rates of Wage and Prescribed Hours of Work—Adult Male and Adult Female Occupations, Sydney and Melbourne.

Quarterly. Aerial Agriculture; Average Retail Prices of Food and Grocery Items; Balance of Payments; Building; Building—Australian Capital Territory; Building—Northern Territory; Building—Number of New Houses and Flats (Preliminary); Capital and Maintenance Expenditure by Private Businesses in Australia; Capital Expenditure by Private Businesses in Australia (Preliminary); Consumer Price Index; Industrial Disputes; Instalment Credit for Retail Sales; National Income and Expenditure; New Agricultural Machinery; New Capital Raisings by Companies in Australia; New Capital Raisings by Companies in Australia (Preliminary); New Tractors; Overseas Arrivals and Departures; Overseas Shipping Cargo; Overseas Trade with Major Groups of Countries; Retail Sales of Goods (also Preliminary); Road Traffic Accidents; Unit Trusts, Land Trusts and Mutual Funds; Wholesale Prices—Price Index of Electric Installation Materials.

Monthly. Banking (General) (also Preliminary); Building Approvals; Employment and Unemployment; Export Price Index; Exports by Commodity Divisions; Exports of Wool; Finance Companies; Gold Mining Industry; Imports of Assembled New Passenger Motor Cars (Other than Buses or Special Vehicles); Instalment Credit for Retail Sales (Preliminary); Life Insurance; Meat Industry; Minerals and Mineral Products; Overseas Arrivals and Departures (Preliminary); Overseas Trade (also Preliminary); Overseas Trade, Imports by Commodity Divisions; Production Statistics (also Preliminary); Production Summaries*; Registrations of New Motor Vehicles (also Preliminary); Retail Sales of Goods (Provisional); Savings Banks (also Preliminary); Wage and Salary Earners in Civilian Employment (Preliminary); Wage Rates and Earnings; Wholesale Price (Basic Materials and Foodstuffs) Index; Publications issued by Commonwealth Bureau of Census and Statistics.

Periodically. Demographic Review (separate issues cover population and vital statistics (quarterly), births, deaths and marriages (all annual)); Social Statistics, including Schools, Universities, Hospitals (all annual), and Divorces (annual and quarterly).

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* Current series: Nos 2. Chemicals, etc., 3. Plastic and Synthetic Resins, etc., 4. Paints and Other Surface Coatings, 5. Electricity and Gas, 6. Soaps, Detergents and Glycerine, 7. Internal Combustion Engines, 8. Lawn Mowers, 9. Electric Appliances, 10. Motor Bodies, Trailers, etc., 11. Pedal Cycles, 12. Meters, 13. Building Fittings, 14. Cotton Goods, 15. Wool-scouring, Carbonising and Fellmongering, 16. Wool Textile Industry, 17. Wool Weaving, 18. Hosiery, 19. Shirts, Cardigans, Nightwear, Underclothing, etc., 20. Cellulosic and Synthetic Fibre, Tops, Yarns and Woven Fabrics, 21. Paper, Wood Pulp and Adhesive Tapes, 22. Floor Coverings, 23. Electric Motors, 24. Men's, Youths' and Boys' Outer Clothing, 25. Foundation Garments, 27. Gloves; Slide Zip Fasteners, 28. Footwear (excluding Sandshoes, Galoshes, and Gumboots, etc. of Rubber), 29. Biscuits, Ice Cream, Cocoa, Confectionery, 30. Storage Batteries, 31. Assembly of Motor Vehicle Chassis, 32. Perambulators, Pushers and Strollers, 33. Motor Vehicles, 34. Radio, etc., Television Sets and Cabinets, 35. Mattresses, 36. Preserved Milk Products, 38. Canned Fish, 39. Jams and Preserved Fruit and Vegetables, 40. Cereal Products, 41. Margarine and Other Edible Processed Fats, 42. Malt and Beer, 43. Stock and Poultry Meals (Other than Cereal), 45. Phonograph Records, 47. Aerated Waters, Cordials and Syrups, and Concentrated Cordial Extract, 48. Sports Goods, 49. Building Materials, 50. Electrodes for Manual Welding, 51. Hides and Skins used for Tanning, 52. Electrical Power Transformers, Chokes and Ballasts, 53. Plastics Film, Sheeting and Coated Materials, 55. Butter and Cheese, 56. Canned Meat, 58. Steel Wire and Wire Products, 59. Nonferrous Rolled, Extruded and Drawn Products.

Occasional publications. In addition to the publications listed on pages 1221–4, most of which are issued regularly, there have been a number of statements issued by this Bureau which contain the results of special surveys or new statistical series and descriptions thereof. The more recent of these are listed below.

Special Business Survey No. 16. Incidence of Industrial Awards, Determinations and Agreements, May 1963; Minimum Wage Rates, January 1960 to June 1963; Wage and Salary Earners in Employment, June 1954 to June 1961; Wage and Salary Earners in Employment, June 1961 to June 1965; Projections of the Population of Australia (1966 to 1986); Survey of Private Pension and Retiring Allowance Schemes, 1962–63; Surveys of Weekly Earnings and Hours, October 1962, October 1963, October 1964, and October 1966; Survey of Weekly Earnings, October 1965; Mining and Quarrying, Statistical Summary (1952–1964); Minimum Wage Rates, March 1939 to June 1965; Surveys of Leavers from Schools, Universities or other Educational Institutions, February 1964, 1965 and 1966 (issued October 1966) and February 1967 (issued June 1967); Survey of Multiple Jobholding, August 1966; 1966 Census Bulletins, for each State and Territory and Australia, dealing with particular characteristics, also population and dwelling summaries and totals for local government areas, etc.

Information on current Bureau publications. Further information on current publications of the Commonwealth Bureau of Census and Statistics is contained in *Publications of the Commonwealth Bureau of Census and Statistics*, April 1967, available free on request from the Commonwealth Statistician, Canberra. This contains a list of all Bureau publications, a subject index to show the central office publications in which information on the various subjects dealt with by the Bureau is to be found, and short descriptions of major central office publications. The information on issues in this publication is supplemented in monthly statements.

Commonwealth and State Parliamentary and Departmental Reports and Papers

No comprehensive list of current publications of this nature is available, but the National Library of Australia issues an annual publication *Australian Government Publications*, a list of official publications of the Commonwealth, States and Territories, compiled from records of material received by the Library during the year.

The Publications Branch of the Commonwealth Government Printing Office, Canberra, issues a monthly publication *Commonwealth Publications* and at irregular intervals *Commonwealth Publications Consolidated List*. These publications list Commonwealth publications currently becoming available or in stock, showing the titles and prices of Parliamentary Papers, Parliamentary Debates (Hansard), records of Parliamentary proceedings, Acts, Statutory Rules, Ordinances, and departmental bulletins and reports issued annually or irregularly.

The National Library of Australia issues annually a publication *Australian Books*, a reprint of the 1966 issue of which is included on pages 1231–1277. *See* page 629 of the chapter Education, Cultural Activities and Research for further information concerning the National Library's publicising of Australian publications.

Publications issued by the Deputy Commonwealth Statisticians

A list of the current publications issued by the Deputy Commonwealth Statistician of each State appears in *Publications of the Commonwealth Bureau of Census and Statistics*, April 1967, and this information is supplemented also in the monthly statements mentioned above.

36th Session of The International Statistical Institute

On the invitation of the Government of the Commonwealth of Australia the 36th biennial Session of The International Statistical Institute was held at the Wentworth Hotel, Sydney, from 28 August to 7 September 1967. It was the first occasion in the 82-year history of the Institute that a meeting had been held in Australia, and the Commonwealth Government was the twenty-third national government to act as host to one of the Institute's biennial sessions.

The International Statistical Institute is the leading international scientific academy in the field of statistics. Its objectives are to develop and improve statistical methods; to foster the exchange of professional knowledge among statisticians; to encourage statistical research and the proper use of statistical methods; and to foster public appreciation of sound statistical practices. The Institute also plays an important role in statistical education and conducts statistical education centres in Beirut and Calcutta.

An Australian Organising Committee was established under the chairmanship of the Commonwealth Statistician, Mr K. M. Archer, to make all arrangements for the 36th Session. Invitations were extended to members of the Institute and to representatives of national and international organisations and societies affiliated with the Institute. In addition, national governments with whom Australia maintains diplomatic relations were invited to send delegations to the Session, and a number of leading statisticians who were not members of the Institute were also invited to participate. A total of 362 delegates from 45 countries attended the Session, 153 of these being residents of Australia.

The Session was formally opened on 29 August 1967 by His Excellency the Governor-General of the Commonwealth of Australia, Lord Casey.

A total of 116 technical papers were presented at the Session. Of these, 45 were submitted by eminent statisticians who were specially invited to prepare papers for the Session and 71 were contributions from members of the Institute and non-members who attended the meetings. A list of the papers, together with the author and the author's country of residence, is shown at the end of this section.

During the course of the Session twenty-four separate scientific meetings were held and papers on the following topics were presented and discussed:

Standardisation of Procedures for Evaluation of Data;
Unsolved Problems in Biometrics;
Distribution-free Methods;
Economic Statistics;
Statistical Measurement of the Supply and Utilisation of Natural Resources;
Statistical Theory and Method—Relationships and Multivariate Methods;
Statistical Theory and Method—Estimation and Testing;
Design and Analysis of Non-experimental Enquiries;
Statistics in the Physical Sciences;
Problems of Statistical Development in Developing Countries;
Data Storage and Linkage;
Statistical Theory and Method—Design of Experiments;
Statistical Theory and Method—Sampling;
Appraising the Demands for and Utilisation of Official Statistics;
Statistical Theory and Method—Time Series and Stochastic Processes;
Income Distribution;
University and Non-university Training in Statistics.

In accordance with tradition, the Australian Organising Committee arranged a statistical exhibition in conjunction with the 36th Session. National statistical offices, together with national and international statistical organisations and societies, were invited to exhibit. The exhibition included official statistical publications, journals and textbooks, and for each exhibiting national statistical office a chart showing the organisation of official statistical services. In addition, several exhibitors, including Australia, provided graphs of economic and social statistics for display. The Australian exhibit included also a series of panels illustrating the development of the Australian official statistical system.

The Proceedings of the 36th Session are at present being prepared and are expected to be published in two-volume form early in 1969. The Proceedings will include a record of the papers presented and associated discussion during the technical meetings, together with details of some organisational features of the Session, including a list of participants and details of the general programme.

The 36th Session provided a unique opportunity for Australian statisticians to meet with their colleagues from overseas countries and discuss problems of common interest and concern. While the tangible results of the Session will be evident from the Report of the Proceedings, the intangible results of personal contact and discussion which took place outside the Session will be of considerable value to statisticians in Australia.

TECHNICAL PAPERS PRESENTED AT THE 36TH SESSION OF THE INTERNATIONAL STATISTICAL INSTITUTE

INVITED PAPERS

R. Bachi, R. Baron and G. Nathan (Israel)—Methods of Record-Linkage and Applications in Israel.

B. G. Bantegui (Philippines)—Perspectives of Statistical Development in the Developing Countries of Asia and the Far East.

Ch. A. Bicking (U.S.A.)—Statistics in the Selection and Control of Research and Development Projects.

J. G. Bolton (Australia)—Statistics of Extragalactic Radio Sources.

K. G. Brolin (Sweden UNESCO)—Statistics on Science and Technology in Developing Countries.

Voilet R. Cane (United Kingdom)—Random Walks and Physical Processes.

V. J. Chacko (India)—Problems in Statistical Assessment of Forest Resources and Products.

D. G. Chapman (U.S.A.)—Statistical Problems in the Optimum Utilization of Fisheries Resources.

T. E. DALENIUS (Sweden)—Official Statistics and their Uses.

G. de MEO (Italy)—Incomes and Expenditure of Italian Families on the Basis of the Results of a Recent Survey.

R. DUMAS and S. RONCHETTI (France EEC)—Les revenus des ouvriers dans le Marché commun.

W. J. EWENS (Australia)—The Transient Behaviour of Stochastic Processes, with Applications in the Natural Sciences.

A. M. FLORES (Mexico)—Problems in the Development of Economic and Social Statistics.

S. A. GOLDBERG (Canada)—The Demand for Official Statistics and Their Utilization in Canada with Special Reference to the Role of the National Accounts.

J. HABR (Czechoslovakia)—From Central Planning to Socialist Marketing: Problems of Information Systems.

E. J. HANNAN (Australia)—Fourier Methods and Random Processes.

M. H. HANSEN, W. N. HURWITZ and L. PRITZKER (U.S.A.)—Standardization of Procedures for the Evaluation of Data: Measurement Errors and Statistical Standards in the Bureau of the Census.

M. H. HANSEN and R. B. VOIGHT (U.S.A.)—Program Guidance Through the Evaluation of Uses of Official Statistics in the United States Bureau of the Census.

W. HOEFFDING (U.S.A.)—Some Recent Developments in Nonparametric Statistics.

E. E. HOUSEMAN and H. C. TRELOGAN (U.S.A.)—Progress Towards Optimizing Agricultural Area Sampling.

INSTITUTE OF STATISTICIANS (United Kingdom)—Institute of Statisticians Training for Professional Statisticians.

J. N. R. JEFFERS (United Kingdom)—The Contribution of Statistical Methods to Forest Research and Management.

M. MAESTRE (France)—Sur un modéle des échanges entre la recherche et la production et les problèmes statistiques connexes.

B. MATÉRN (Sweden)—Sample Survey Problems.

T. MATSUDA (Japan)—Development of Agricultural Statistics in Japan.

S. MAZUMDAR (Italy FAO)—Some Problems of Developing Agricultural Statistics in Developing Countries.

M. A. MÓD (Hungary)—Comprehensive Income Statistics System in Hungary (Socio-economic Stratification and Income Distribution).

F. MOSTELLER (U.S.A.)—Statistical Comparisons of Anesthetics: the National Halothane Study.

S. NORDBOTTEN (Norway)—Purposes, Problems, and Ideas Related to Statistical File Systems.

I. OHLSSON (Sweden)—Merging of Data for Statistical Use.

E. N. OMABOE and K. T. de GRAFT-JOHNSON (Ghana)—Possibilities for Evaluation of Census or Survey Data in Developing Countries.

YU. V. PROHOROV (U.S.S.R.)—Newest Investigations on Distribution-free Methods in the U.S.S.R.

B. RAMAMURTI (India)—Appraisal of the Demands for and Uses of Official Statistics: with Special Reference to Developing Countries.

A. RÉNYI (Hungary)—On some Problems in the Theory of Order Statistics.

H. E. RILEY (U.S.A.)—Statistics of Research and Development in the United States.

H. S. SICHEL (South Africa)—Application of Statistical Techniques to the Evaluation of Mineral Deposits.

W. R. SIMMONS (U.S.A.)—Analysis of Bias in Interview-Reported Hospital Experience.

J. STEINBERG and L. PRITZKER (U.S.A.)—Some Experiences with and Reflections on Data Linkage in the United States.

R. STONE (United Kingdom)—The Generation, Distribution and Use of Income.

K. SZAMEITAT and R. DEININGER (Germany)—Some Remarks on the Problem of Errors in Statistical Results.

C. TAEUBER (U.S.A.)—The Development of Population Censuses and Vital Statistics.

E. J. WILLIAMS (Australia)—The Development of Biomathematical Models.

W. T. WILLIAMS and G. N. LANCE (Australia)—Application of Computer Classification Techniques to Problems in Land Survey.

H. O. WOLD (Sweden)—Non-experimental Statistical Analysis from the General Point of View of Scientific Method.

S. S. ZARKOVICH (Yugoslavia FAO)—A System of Statistical Quality Codes.

CONTRIBUTED PAPERS

G. N. ALEXANDER and A. B. SUSTS (Australia)—The Logarithmic Transformation and its Application to Hydrologic Data.

B. BARBERI (Italy)—Some Problems on the Statistical Measurement of Capital.

R. E. BARLOW (U.S.A.)—Likelihood Ratio Tests for Restricted Families.

R. BARTOSZYŃSKI (Poland)—A Model of Age Dependent Inheritance of Cancer-proneness.

D. BASU and J. K. GHOSH (India)—Sufficient Statistics in Sampling from a Finite Universe – Part I.

T. N. BHARGAVA and S. D. CHATTERJI (U.S.A.)—Mathematical Models in Management Sciences: Consumer Behaviour as a Markov Process.

T. N. BHARGAVA and D. L. FISK (U.S.A.)—Random Graphs and Probability Models.

F. BURKHARDT and L. OSADNIK (Germany)—Standardisierung von Differentialgleichungen für die Auswertung von ökonomischen und demographischen Daten.

J. M. CALLIES (Madagascar)—Les problèmes de l'expansion statistique dans les pays en voie de développement.

H. CHERNOFF (U.S.A.)—Bounds on the Efficiency of a Classification Procedure.

G. R. CHEVRY (France)—Avenir des enquêtes officielles.

D. R. COX (United Kingdom)—Some Results Connected with the Logistic Binary Response Model.

H. A. DAVID and R. S. MISHRIKY (U.S.A.)—Order Statistics For Discrete Populations and for Grouped Samples.

P. J. DELAPORTE (France)—Etude de la corrélation entre plusieurs caractères mesurés avec des erreurs de connaissance.

J. DURBIN (United Kingdom)—Tests of Serial Independence Based on the Cumulated Periodogram.

I. ESENWEIN-ROTHE (Germany)—University Training in Economic Statistics.

L. FÉRAUD (Switzerland)—Modèles d'évolution d'un personnel d'après l'âge et le salaire. Stationnariété et stabilité.

R. W. FERGIE and K. M. ARCHER (Australia)—Official Statistics in the Decision-making Process with Special Reference to Problems of Urban Growth.

I. S. FRANCIS (U.S.A.)—Selecting and Assessing Variables in the Classification Problem.

V. P. GODAMBE (U.S.A.)—A Fiducial Argument with Application to Survey-Sampling.

W. M. HARPER (Australia)—The Distribution of the Mean Half-Square Successive Difference.

L. HARRIS (U.S.A.)—On Interdependent Decision Problems.

H. O. HARTLEY and J. N. K. RAO (U.S.A.)—A New Approach to the Classification Problem.

T. HATORI (Japan)—On Some Considerations of the Learning Models and Related Problems.

F. E. HOBSON (Canada)—A Contribution to Mathematical Modelling for Health Services.

F. B. HORNER (Australia)—Training of Professional Staff within the Commonwealth Bureau of Census and Statistics.

R. A. HORVÁTH (Hungary)—The Contribution of Netherlandish Thinking to the Formation of Statistics as an Autonomous Discipline.

H. M. HUSEIN and A. E. SARHAN (U.A.R.)—A Study of the Relationship of Height and Weight with Age of School Children in U.A.R.

INSTITUTO NACIONAL DE ESTADÍSTICA DE ESPAÑA (Spain)—Ordenación de las Estadisticas Para la Planificación Económica.

K. JOGDEO and G. P. PATIL (U.S.A.)—Characterization of Independence in Bivariate Families with Regression Dependence.

P. W. M. JOHN (U.S.A.)—Extending the Cubic Association Scheme.

S. JOHN (Australia)—A Central Tolerance Region for the Multivariate Normal Distribution.

L. KATZ (U.S.A.)—Statistical Decision: Theory versus Application, Exemplified in Smoking-Health Controversy.

S. H. KHAMIS (Lebanon)—Some Problems Relating to the International Comparability and Fluctuations of Production Volume Indicators.

S. KORENAGA (Japan)—Chronological Series Analysis of Economic Statistics and its Stochastic Foundation.

D. B. LAHIRI (India)—The Indian National Sample Survey—The Strategy for Analytical Studies: Design Aspects.

H. O. LANCASTER (Australia)—The Infection and Population Size in Australia.

M. R. LEADBETTER (U.S.A.)—On the Distributions of the Times Between Events in a Stationary Stream of Events.

E. LUKACS (U.S.A.)—Some Properties of Stable Frequency Functions.

G. MALECOT (France)—Conséquences statistiques de la parenté.

R. C. MILTON (U.S.A.)—Sequential Two-Sample Rank Tests of the Normal Shift Hypothesis.

H. V. MUHSAM (Israel)—The Population Factor in the Income Pyramid.

C. S. OKUNO and T. OKUNO (Japan)—A Computer Programme for the Analysis of 3^n-type Fractional Factorial Designs.

HONG NAI PARK (Korea)—A Partial Retention Scheme for Multi-stage Sampling on Successive Occasions.

E. PARZEN (U.S.A.)—System Identification by Time Series Methods.

H. D. PRIDMORE (Australia)—Elements of a Set-theoretic Approach to Data Storage and Linkage.

M. L. PURI (U.S.A.)—The van Elteren W test and Non-null Hypothesis.

C. R. RAO (India)—On Vector Variables with a Linear Structure and a Characterization of the Multivariate Normal Distribution.

R. A. REYMENT (Sweden)—A Multivariate Paleontological Growth Problem.

L. ROSENBERG (U.S.A.)—Estimation of the Parameters of the Weibull Distribution from Attribute Data.

T. V. RYABUSHKIN (U.S.S.R.)—Specific Features of Interindustry Balance-sheet Construction in the Soviet Union.

A. E. SARHAN (U.A.R.) and B. G. GREENBERG (U.S.A.)—Linear Estimates for Doubly Censored Samples from the Exponential Distribution with Observations Also Missing from the Middle.

J. SETHURAMAN (India)—Stopping Time of a Rank-order Sequential Probability Ratio Test Based on Lehmann Alternatives—II.

N. C. SEVERO (U.S.A.)—Generalizations of Some Stochastic Epidemic Models.

L. R. SHENTON and K. O. BOWMAN (U.S.A.)—Sampling Moments of Moment and Maximum Likelihood Estimators for Discrete Distributions.

W. L. SMITH (U.S.A.)—Remarks on Renewal Theory when the Quality of Renewals Varies.

I. STEFANOV (Bulgaria)—Statistische Grundlagen zur Erforschung der Innenwanderung.

M. A. STEPHENS (Canada)—A Goodness-of-fit Statistic for the Circle, with Some Comparisons.

M. S. SRIVASTAVA (Canada)—Some Sequential Tests for Student's Hypothesis.

A. B. SUNTER and I. P. FELLEGI (Canada)—An Optimal Theory of Record Linkage.

G. TAGLIACARNE (Italy)—Nécessité du calcul du revenu national par région.

P. THIONET (France)—Emploi d'une suite markovienne (processus markovien non-homogène à temps discret) pour retrouver quelques tests non paramétriques connus.

L. THIRRING (Hungary)—Historical Statistics and the International Statistical Institute.

J. TORRENS-IBERN (Spain)—Un nouveau test d'homogénéité pour échantillons multiples.

D. S. TRACY (Canada)—Pattern Coefficients for Products of Generalized k-Statistics.

D. VERE-JONES (Australia)—Statistical Methods in the Analysis of Earthquake Data.

A. VESSEREAU (France)—Le centre de formation aux applications industrielles de la statistique.

J. W. E. VOS (Netherlands)—Variance Estimators in Systematic Sampling.

G. S. WATSON (Australia)—Some Problems in the Statistics of Directions.

P. WHITTLE (United Kingdom)—Nonlinear Migration Processes.

W. WINKLER (Austria)—Real Versus Nominal Age.

AUSTRALIAN BOOKS 1966

The following pages are a reprint of the latest issue of a publication of the National Library of Australia begun in 1933 as *Select List of Representative Works dealing with Australia* and given its present form and title with *Australian Books* 1949. The list was included in issues of the Year Book annually up to No. 48, 1962, but exigencies of space in recent years have caused its omission. It is designed to meet the growing need, in Australia as publishing develops, and overseas as interest in Australia widens, for an authoritative current reference and reading list of books dealing with Australia or of Australian authorship, wherever published.

Australians will find these books in the National Library and in their State Libraries as well as in leading bookshops. Ideally they should be in every general library of importance, including municipal and shire libraries.

Overseas readers may have access to them in the collections which the National Library maintains at sixty-three posts in fifty countries. They will be found also, increasingly, in leading libraries and bookshops in many countries. For example, they are supplied by the National Library to the National Library of Canada, the Fundamental Library of Social Sciences, Moscow, and the National Diet Library, Japan. In the United States also, Australian books are included in the Farmington Plan in which sixty-two libraries and research institutions co-operate to ensure that at least one copy of all material published in any part of the world and likely to be required for a serious purpose will be available promptly somewhere in the country.

The list is classified broadly by subject, and under each heading there is first a list of the principal standard books still in print, then a list of selected books and official publications (excluding annual reports) published in the last few years. To ensure that, so far as is possible, an evenness of standard is maintained in the compilation of the list, the advice of a representative range of experts in the various subject fields has been sought.

Where known the retail price in the country of publication is given, but this is subject to fluctuation. Generally, the price of Australian publications is given in decimal currency. Prices shown for items published in the United States are in United States dollars.

In further fulfilment of its obligations to make Australian publications widely known, both at home and abroad, the Library issues a series of select lists which include *Australian Public Affairs Information Service* (monthly, and, since 1955, cumulated annually): a subject index of material in current periodicals with an important bearing on investigations in Australian political, economic, cultural, and social affairs, and the following full bibliographies.

Australian National Bibliography, a list of monographs and new serial titles (including government publications), maps, prints, sheet music, and moving picture films, of Australian interest. Formerly issued monthly, from January 1967 this publication will be issued four times a month, the fourth issue cumulating the entries from the preceding three.

An annual cumulation of *Australian National Bibliography* and an annual publication entitled *Australian Government Publications*, listing Commonwealth and State government monographs and serials.

GENERAL AND DESCRIPTIVE

Standard Works in Print

AUSTRALIA. *Commonwealth Bureau of Census and Statistics.* Quarterly summary of Australian statistics. Canberra, 1912 to date. 50c ea.

AUSTRALIA. *Department of the Interior.* Australia; official handbook. Canberra, 1961 to date. Latest issue 1966. $1.00 ea.

AUSTRALIA. *Department of National Development.* Atlas of Australian resources (First series). Canberra, 1953–1960. Second series, 1963 to date. *Contents:* Physical features, Geology, Mineral deposits, Climatic regions, Temperatures, Rainfall, Drainage systems, Conservation of surface water, Underground waters, 2nd ed., Soils, Vegetation regions, Dominant land use, Croplands, Agricultural production, Distributuon of stock, Forest resources, Mineral industry, Electricity, Manufacturing industries, Population distribution and growth, Population increase and decrease, 1933–1947, Population increase and decrease, 1947–1954, Immigration, Railways, Roads and aerodromes, Ports and shipping, Educational facilities, Health services, State and local government areas, Major developmental projects.

Each map-sheet accompanied by a booklet of commentary on the general subject of the map (included in price). Single maps; unfolded or folded to commentary size, 50c ea., linen strip mounted for loose-leaf binder, 60c ea. Complete sets folded (in three boxes), $17.00, in loose-leaf binder with commentaries in box, $21.00.

AUSTRALIA. *National Capital Development Commission.* The future Canberra. Sydney, Angus and Robertson, 1965. $4.20.

AUSTRALIA in facts and figures, Canberra, Australian News and Information Bureau, 1943 to date. Quarterly. Limited gratis distribution.

AUSTRALIAN encyclopaedia; (ed.-in-chief Alec Chisholm) Sydney, Grolier Society of Australia, 1965. Price on application, 10v. Supplemented by the *Encyclopaedia year book.*

AUSTRALIAN quarterly; a quarterly review of Australian affairs. Sydney, Australian Institute of Political Science, 1929 to date. 50c ea.

BEAN, C. E. W. On the wool track. Sydney, Angus and Robertson, 1963. $2.10.
First published in 1910.

CURRENT affairs bulletin, Sydney, Department of Tutorial Classes, University of Sydney, 1947 to date. Fortnightly. $2.00 p.a.

HURLEY, F. Australia: a camera study. Res. ed. Sydney, Angus and Robertson, 1966. $7.00.

LIFE in Australia. Melbourne, Oxford University Press, 1959 to date. 50c ea.
This series covers such topics as country towns, orchards, Murray River, kangaroos, lyrebirds, cattle stations, beaches, and living in cities.

MARSHALL, A. J. Journey among men, by Jock Marshall and Russell Drysdale. London, Hodder and Stoughton, 1963. 53s.
Also issued by Sun Books for $1.65.

MOORE, T. Inglis, *ed.* A book of Australia. London, Collins, 1961. 10s. 6d. (Collins national anthologies).

NOBLE, N. S., *ed.* The Australian environment. 3rd ed. Melbourne, C.S.I.R.O. in association with Melbourne University Press, 1966. $4.00.

OFFICIAL year book of the Commonwealth of Australia. Canberra, Govt. Pr, 1908 to date. Latest issue no. 52. $2.00 ea.

RATCLIFFE, F. N. Flying fox and drifting sand; the adventures of a biologist in Australia. Sydney, Angus and Robertson, 1963. $2.50 cloth, $1.60 paper.
First published in 1938.

TAYLOR, T. G. Australia; a study of warm environments and their effect on British settlement. 7th ed. rev. and enlarged. London, Methuen, 1961. 57s. 9d.

WALKABOUT, Australian way-of-life magazine. Melbourne, Australian National Travel Association, 1934 to date. Monthly. $3.85 p.a.

WARD, R. B. The Australian legend. 2nd ed. Melbourne, Oxford University Press, 1966. $5.00.
An historical analysis of Australian national characteristics.

WHITE, Myrtle. No roads go by. New ed. Adelaide, Rigby, 1962. $2.50.
This account of station life in the far north of South Australia, which was first published in 1932, is regarded as a classic of the Australian outback.

WIGMORE, L. G. The long view; a history of Canberra, Australia's national capital. Melbourne, Cheshire, 1963. $4.20.

Recent Publications of Interest

AMMON, W. W. Wheeltracks. Sydney, Angus and Robertson, 1966. $3.50.
An account of transport driving in the north-west of Western Australia.

ANDREWS, J., *ed.* Frontiers and men; a volume in memory of Griffith Taylor (1880–1963). Melbourne, Cheshire, 1966. $5.75.

AUSTRALIA. *Department of the Interior.* Canberra street names and their origins. Canberra, 1966. 30c.

BEATTY, W. A. Around Australia with Bill Beatty. Melbourne, Cassell Australia, 1966. $4.50.

BEATTY, W. A. A treasury of Australian folk tales and traditions. Sydney, Ure Smith, 1964. $4.25.

BERNEY, M. Australia, Sydney, Angus and Robertson, 1965. $10.50.

BLACK, P. The Poms in the sun. London, M. Joseph, 1965. 30s.
The author visited Australia to make a survey for the *Daily Mail* of English migrants in this country.

BRODSKY, I. Sydneys' little world of Woolloomooloo. Neutral Bay, N.S.W., Old Sydney Free Press. 1966. $4.50.

BROUGHTON, G. W. Men of the Murray; a surveyor's story. Adelaide, Rigby, 1966. $3.95.
The author was engaged in surveying the River Murray lock sites in the early 1920's.

CANBERRA up-to-date; a guide for visitors and businessmen. 2nd ed. Canberra, Rampart Publishing, 1966. $1.00.

CARTER, J. People of the inland. Adelaide, Rigby, 1966. $3.95.

COLEMAN, P., *ed.* Australian civilisation; a symposium. Melbourne, Cheshire, 1962. $3.50.

CUSACK, F., *ed.* The Australian Christmas. Melbourne, Heinemann, 1966. $3.90.
A selection from writings on the celebration of Christmas in Australia from the early nineteenth century onwards.

FARWELL, G. M. Around Australia on highway one. Sydney, Nelson, 1966. $5.95.

FORD, Margaret. Beyond the furthest fences. London, Hodder & Stoughton, 1966. 25s.
Story of two pioneering families—the Chalmers and the Kents who settled in Central Australia in 1923.

FREELAND, J. M. The Australian pub. Melbourne, Melbourne University Press, 1966. $7.00.
A comprehensive account of this longstanding institution.

GILMORE, *Dame* Mary. Old days old ways; a book of recollections. Sydney, Angus and Robertson, 1963. $2.10. (Sirius books)
First published in 1934.

GOODMAN, R. B. The Australians. Text by George Johnston. Edited by Jonathan Rinehart. 2nd ed. Adelaide, Rigby, 1967. $8.95.

HEMISPHERE. Hemisphere; Asian-Australian viewpoints and ideas, edited by R. J. Maguire. Melbourne, Cheshire, 1964. $3.25.
Articles selected from *Hemisphere*, representing a conspectus of Australian and Asian culture as they converge in this country.

HOLFORD, W., *Lord.* The growth of Canberra; 1958-1965 and 1965-1972; a review . . . presented to the National Capital Development Commission. Canberra, National Capital Development Commission, 1965. Selected gratis distribution.

HORNE, D. The lucky country; Australia in the sixties. Revised and enlarged ed. Sydney, Angus and Robertson, 1966. $3.00.
An analysis of present-day Australia.

KERR, A. South-west region of Western Australia. Perth, University of Western Australia Press, 1965. $4.20.

MCGREGOR, C. Profile of Australia. London, Hodder and Stoughton, 1966. 42s.

MACKANNESS, G. Fourteen journeys over the Blue Mountains, 1813-1841. Sydney, Horwitz-Grahame, 1965. $4.50.
First published in three parts in 1950-1951.

MCLEOD, A. L., *ed.* The pattern of Australian culture. New York, Cornell University Press, 1963. $7.50. (U.S.)

MACPHERSON, B. Journey to the red rock; a story of Central Australia, by Bruce and June MacPherson. London, Collins, 1965. 16s.

MICHAELS, P. Australia. London, Studio Vista, 1965. 7s. 6d.

MILLER, J. D. B. Australia. London, Thames and Hudson, 1966. 30s.

MODERN encyclopaedia of Australia and New Zealand. Sydney, Horwitz-Grahame, 1964. $17.50.

MUDIE, I. Rivers of Australia. Adelaide, Rigby, 1966. $2.50.

PINNEY, P. Restless men. Sydney, Angus and Robertson, 1966. $3.75.
Anecdotes of casual travel in Queensland.

PRINGLE, J. M. D. Australian accent; drawings by George Molnar. London, Chatto and Windus, 1958. 18s.

RUHEN, O. The Rocks, Sydney. Drawings by Unk White. Adelaide, Rigby, 1966. $1.95.

SHARLAND, M. Oddity and elegance. Hobart, Fuller's Bookshop, 1966. $5.25.
An account of the lesser known historical features of Tasmania.

SLESSOR, K. Canberra. Adelaide, Rigby, 1966. $2.95.

SMITH, Eleanor. The beckoning west; the story of H. S. Trotman and the Canning stock route. Sydney, Angus and Robertson, 1966. $3.75.
This stock route stretches 870 miles over the desert in Western Australia, from Hall's Creek to Wiluna.

SMITH, R. V. E. Australia in colour. Melbourne, Lansdowne, 1965. 2v. $4.50 ea.

SOUTER, G. Sydney, by G. Souter and Q. F. Davis. Sydney, Angus and Robertson, 1965. $7.50.

TROLLOPE, A. Trollope's Australia; a selection from the Australian passages in *Australia and New Zealand*. Edited by Hume Dow. Melbourne, Nelson (Australia), 1966. $3.95.

WALKABOUT. Walkabout's Australia, edited by A. T. Bolton, Sydney, Ure Smith in association with the Australian National Travel Association, 1964. $4.50.

WARD, K. Perth sketchbook. Text by Kirwan Ward. Illustrations by Paul Rigby. Adelaide, Rigby, 1966. $1.95.

WEBB, Beatrice. The Webb's Australian diary 1898, edited by A. G. Austin. Melbourne, Pitman, 1965. $3.75.

This account of the visit of the wellknown socialists, contains passages written by both of them.

COUNTRIES ABROAD

Recent Publications of Interest

CUSACK, Dymphna. Illyria reborn. London, Heinemann, 1966. 30s.

DEANE, Shirley. Feet in the clouds of the mountains of Corsica. London, Murray, 1965. $2.50.

FARWELL, G. M. Last days in paradise. Adelaide, Rigby, 1964. $3.50.

An account of Tahiti revisited.

FARWELL, G. M. Mask of Asia; the Philippines. Melbourne, Cheshire, 1966. $4.50.

GORE, S. Going to Britain. Brisbane, Jacaranda, 1964. $2.75. (Jacaranda travel guides)

LINDSAY, Joan, *Lady*. Facts, soft and hard. Melbourne, Cheshire, 1964. $3.50.

Impressions gained on a visit to the United States by the wife of the well-known artist.

McGUIRE, Frances. Gardens of Italy. London, Heinemann, 1965. 30s.

The author spent several years in Italy during her husband's term as Australian Ambassador there.

NOLAN, Cynthia. One traveller's Africa. London, Methuen, 1965, 42s.

This account of a journey through Africa is illustrated with reproductions of the paintings of the author's husband, Sidney Nolan.

PHELAN, Nancy. Welcome the wayfarer; a traveller in modern Turkey. London, Macmillan, 1965. 36s.

ROBINSON, Judith. France today; background to a modern civilization, by Judith Robinson and Angus Martin. Sydney, Novak, 1964 $1.65.

ROPER, Myra. China—the suprising country. London, Heinemann, 1966. 42s.

The author, formerly principal of the Women's College in the University of Melbourne, visited China in 1958 and 1963.

SIMPSON, C. Take me to Russia and Central Asian Republics of the Soviet Union. Sydney, Angus and Robertson, 1964. $4.50.

SIMPSON, C. The viking circle. Sydney, Angus and Robertson, 1966. $5.50.

An account of the Scandinavian countries together with Iceland and Greenland.

SOUTHALL, I. Indonesian journey. Melbourne, Lansdowne, 1965. $3.25.

TERRY, Susan. House of love; life in a Vietnamese hospital. Melbourne, Lansdowne, 1966. $4.50.

TREGONNING, K. G., *ed.* Malaysia and Singapore. Revised ed. Melbourne, Cheshire, for the Australian Institute of International Affairs, 1966. $1.35.

WATT, Mildred, *Lady*. Japan; land of sun and storm. Melbourne, Cheshire, 1966. $5.00.

The author, as wife of the Australian ambassador, spent the years between 1956 and 1960 in Japan.

WILLIAMS, R. M. Five journeys from Jakarta; inside Sukarno's Indonesia. New York, Morrow, 1965. $6.00 (U.S.)

COMMONWEALTH TERRITORIES

Standard Works in Print

AUSTRALIA. *Commonwealth Bureau of Census and Statistics.* Northern Territory statistical summary. Canberra, 1960 to date. Annual. 50c ea.

AUSTRALIA. *Department of Territories.* Australian territories. Canberra, 1960 to date. Bi-monthly. Gratis.

AUSTRALIA. *Department of Territories. Committee to Enquire into Prospects of Agriculture in the Northern Territory.* Prospects of agriculture in the Northern Territory; report of the Forster Committee. Canberra, 1961. $4.00.

AUSTRALIAN CAPITAL TERRITORY. *Laws, Statutes, etc.* Laws of the Australian Capital Territory in force on 1st January, 1960. Canberra, Govt Pr, 1961–62. 3v. Supplemented by two volumes issued in 1964, covering the laws made during the period 1960 to 1963. $31.50 a set.

AUSTRALIAN NATIONAL ANTARCTIC RESEARCH EXPEDITION, 1947–1949 (Reports). Melbourne, Antarctic Division, Department of External Affairs, 1951 to date. Gratis.

AUSTRALIAN NATIONAL UNIVERSITY. *Research School of Pacific Studies. New Guinea Research Unit.* Bulletins. Canberra, 1963 to date. $1.00 ea.

HANDBOOK of Papua and New Guinea. 5th ed. Sydney, Pacific Publications, 1966. $2.00

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT. *Mission on the Economic Development of Papua and New Guinea.* The economic development of the Territory of Papua and New Guinea. Baltimore, Johns Hopkins Press for the International Bank, 1965. $8.50 (U.S.)

MCCARTHY, J. K. Patrol into yesterday. Melbourne, Cheshire, 1965. $4.75.
An account of the development of the Territory of Papua and New Guinea. The author, formerly a patrol officer, is now Director of Native Affairs in the Territory.

NEW Guinea and Australia, the Pacific and South-East Asia. Sydney, Council on New Guinea Affairs, 1965 to date. Quarterly. $2.00 p.a.

NORTHERN TERRITORY. *Law, statutes, etc.* The laws of the Northern Territory of Australia made from 1st January, 1961 to 31st December, 1964. Canberra, Govt Pr, 1965–66. 2v. $20.00.

PAPUA AND NEW GUINEA, Territory of. *Laws, Statutes, etc.* Laws of the Territory of Papua-New Guinea, 1945–1949 (annotated) . . . together with supplements to the Laws of the Territory of Papua, 1888–1945 (annotated) and the laws of the Territory of New Guinea, 1921–1945 (annotated). Sydney, Govt Pr, 1952 to date. $42.00 a set.
Supplementary volumes are issued annually.

SOUTER, G. New Guinea, the last unknown. Sydney, Angus and Robertson, 1963. $4.75.

SWAN, R. A. Australia in the Antarctic; interest, activity and endeavour. Melbourne, Melbourne University Press, 1961. $6.50.

UNITED NATIONS. *Trusteeship Council Visiting Mission to the Trust Territories of Nauru and New Guinea*, 1962. Report on New Guinea, Paris, 1962. 50c (U.S.)
Chairman: Sir Hugh Foot.
See also the Annual reports of the Commonwealth Department of Territories, the reports to the General Assembly of the United Nations on trusteeship territories, the Annual reports of Christmas Island, Cocos Island, Nauru, Norfolk Island, Northern Territory, Papua, New Guinea, and of the various branches of the Northern Territory Administration and departments of the Papua and New Guinea Administration and the section headed *Ethnology* in this list.

Recent Publications of Interest

AUSTRALIA. *Commission on Higher Education in Papua and New Guinea.* Report. Canberra, 1964. $2.00.
Chairman: Sir George Currie.
Processed.

AUSTRALIA. *Department of Territories.* Administration of the Territory of New Guinea. Canberra, Govt Pr, 1966. $4.20.

AUSTRALIA. *Department of Territories.* Pattern for progress in Papua and New Guinea. Canberra, 1965. Gratis.

AUSTRALIA. *Department of Territories.* Progress of the Australian territories, 1952–1962. Canberra, Govt Pr. 1963. Gratis.

BECHERVAISE, J. Blizzard and fire; a year at Mawson, Antarctica. Sydney, Angus and Robertson, 1963. $2.75.

BETTISON, D. G., *ed.* The Papua-New Guinea elections, 1964, edited by D. G. Bettison, C. A. Hughes (and) Paul W. van der Veur. Canberra, Australian National University, 1965. $9.00.

BLACKWELL, Doris. Alice on the line, by Doris Blackwell and Douglas Lockwood. Adelaide, Rigby, 1965. $3.25.
A record of experiences at the Alice Springs telegraph station from 1899 to 1908.

CHAMPION, I. F. Across New Guinea from the Fly to the Sepik. Melbourne, Lansdowne, 1966. $5.25.
First published in 1932.

ESSAI, B. Papua and New Guinea; a contemporary survey. Melbourne, Oxford University Press 1961. $3.75.

FLYNN, F. The living heart, by Frank Flynn with Keith Willey. Sydney, F. P. Leonard, 1964. $3.45.
The author has worked in the Northern Territory for over twenty years as missionary, anthropologist and doctor.

HASLUCK, *Rt. Hon.* P. M. C. Australia's northern development. Canberra, Department of Territories, 1963. Gratis.
Statement based on a speech in the House of Representatives, 22 August 1963.

INDEPENDENCE of Papua-New Guinea; what are the pre-requisites? Four lectures presented under the auspices of the Public Lectures Committee of the Australian National University, by D. G. Bettison, E. K. Fisk, F. J. West, and J. G. Crawford. Sydney, Angus and Robertson, 1962. 75c.

LOCKWOOD, D. W. Up the track. Melbourne, Readers Book Club in association with the Companion Book Club London, 1966. 85c.
Travel in Northern Territory. First published in 1964.

MATTES, J. R. A survey of the legislation dealing with native labour in Papua and New Guinea. Canberra, Department of Territories, 1963.

NORTHERN TERRITORY. *Legislative Council. Select Committee on Political Rights. Report together* with minutes of proceedings. Canberra, Govt Pr, 1963. Price on application.

NORTHERN TERRITORY. *Legislative Council Select Committee on Social Welfare Legislation.* Report together with minutes of proceedings, Canberra, Govt Pr, 1964. Price on application.

PAPUA AND NEW GUINEA, Territory of. *Legislative Council. Select Committee Appointed to Inquire into and Report upon the Political Development of the Territory.* Interim report (and second interim report) Canberra, Govt Pr, 1963. 5c, 2c,

PRICE, *Sir* Grenfell. The challenge of New Guinea. Sydney, Angus and Robertson, 1965. $4.00.

READ, K. E. The high valley. New York, Scribners', 1965. $6.95 (U.S.).
An account of two years spent in the Central Highlands of New Guinea.

ROWLEY, C. D. The New Guinea villager; a retrospect from 1964. Melbourne, Cheshire, 1966. $7.50.
An account of changes in village life since the first contact with modern civilization.

SALISBURY, R. F. From stone to steel, economic conseqences of a technological change in New Guinea. Melbourne, Melbourne University Press on behalf of the Australian National University, 1962. $6.30.

SAUNDERS, G. Bert Brown of Papua. London, M. Joseph, 1965. 30s.
The parish of the subject of this biography, a missionary in New Guinea, extends over 3,000 square miles of primitive territory.

SINCLAIR, J. P. Behind the ranges; patrolling in New Guinea. Melbourne, Melbourne University Press, 1966. $4.75.

TEMPLE, P. The sea and the snow: the South Indian Ocean Expedition to Heard Island. Melbourne, Cassell Australia, 1966. $4.00.

TUDOR, Judy. Many a green isle. Sydney, Pacific Publications, 1966. $3.50.
A journalist's account of islands of the South Pacific, New Guinea and Nauru.

UNITED NATIONS. *Trusteeship Council Visiting Mission to the Trust Territories of Nauru and New Guinea.* The people speaking; New Guinea, Nauru; Texts of daily progress reports covering the work of the 1965 visiting mission from the United Nations Trusteeship Council to New Guinea and Nauru. Canberra, 1965. Gratis.

VAN DER VEUR, P., *comp.* Documents and correspondence on New Guinea's boundaries. Canberra, Australian National University Press, 1966. $3.90.

VAN DER VEUR, P. Search for New Guinea's boundaries from Torres Strait to the Pacific. Canberra, Australian National University Press, 1966. $6.30.

WHITE, O. Parliament of a thousand tribes; a study of New Guinea. Sydney, Heinemann, 1965. $4.50.
The author has had thirty years experience as a journalist in the south-west Pacific.

WILLIAMS, R. M. Stone age island; seven years in New Guinea. London, Collins, 1964. $3.50.

WILLEY, K. Assignment in New Guinea. Brisbane, Jacaranda, 1965. $3.95.
A journalist's account.

WILLEY, K. Crocodile hunt. Brisbane, Jacaranda, 1966. $4.50.
The author left his position as a journalist in Darwin to hunt crocodile in the swamp plains bordering Arnhem Land.

WRIGHT, M. The gentle savage. Melbourne, Lansdowne, 1966. $3.50.
The author has lived in New Guinea at intervals since he was a patrol officer there in the 1930's.

HISTORY

Standard Works in Print

AUSTRALIAN journal of politics and history, Brisbane, University of Queensland Press, 1955 to date. Two issues a year. $1.50 ea.

AUSTRALIANA fascimile editions. Adelaide, Libraries Board of South Australia, 1962, to date. Various prices.
Source materials on Australian history, reproduced by the Public Library of South Australia. This series has so far included works such as Raffaelo's *The Eureka stockade*, the Bigge report and the published journals of explorers such as Burke and Wills, Sturt, McKinlay, Eyre, and Grey.

BLAINEY, G. The rush that never ended; a history of Australian mining. Melbourne, Melbourne University Press, 1963. $4.20.

BARNARD, Marjorie. A history of Australia. Sydney, Angus and Robertson, 1962. $6.50.

CLARK, C.M.H. A history of Australia; v. 1, From the earliest times to the age of Macquarie. Melbourne, Melbourne University Press, 1963. $6.30.

CLARK, C. M. H. A short history of Australia. London, Heinemann, 1964. 35s.

CLARK, C. M. H., *ed.* Select documents in Australian history, 1788–1900; selected and ed. by C. M. H. Clark with the assistance of L. S. Pryor. Sydney, Angus and Robertson, 1950–1955. v. 1, 1788–1850; v. 2, 1851–1900. v. 1, $4.50; v. 2, $7.50.
Reprinting.

CLARK, C. M. H., *ed.* Sources of Australian history; selected and ed. by M. Clark. London, Oxford University Press, 1957. 9s. 6d. (World's classics, 558)

COBLEY, J. Sydney Cove, 1788. London, Hodder and Stoughton, 1962. 30s.
Extracts from contemporary diaries describing conditions during the first year of the settlement in Australia. Two further volumes by the same author, covering the period 1789–1792, were issued in 1963 and 1965. $5.00 and $6.50.

COOK, J. The journals of Captain James Cook on his voyage of discovery, edited from the original manuscripts by J. C. Beaglehole with the assistance of J. A. Williamson, J. W. Davidson and R. A. Skelton. London, Hakluyt Society, 1955 to date.
Contents: v. 1, Voyage of the *Endeavour*, 1768–1771. 80s. and 50s., v.2, The voyage of the *Resolution* and *Adventure*, 1772–1775. 120s.

CRAWFORD, R. M. Australia. 2nd ed. London, Hutchinson's University Library, 1964. 15s.

CROWLEY, F. K. Australia's western third; a history of Western Australia from the first settlement to modern times. London, Macmillan, in association with the University of Western Australia Press, 1960. 55s.

CROWLEY, F. K. The records of Western Australia. Perth, Publications Committee of the University of Western Australia, 1953 to date. $8.40 per v.

FITZPATRICK, Kathleen. Australian explorers; a selection of their writings with an introduction. London, Oxford University Press, 1958. 9s. 6d. (World's classics, 559.)

GREENWOOD, G., *ed.* Australia; a social and political history. 3rd ed. Sydney, Angus and Robertson, 1966. $4.75.
First published in 1955.

HANCOCK, *Sir* Keith. Australia. 3rd ed. Brisbane, Jacaranda. 1961. $1.55. (Australian University paperbacks.)
First published in 1930.

HISTORICAL records of Australia (edited by J. F. Watson). Sydney, Govt Pr, 1914–1925. 34 v. $6.50 ea. Published by and available from the National Library of Australia, Canberra.

HISTORICAL studies: Australia and New Zealand. Melbourne, Melbourne University Press, 1940 to date. Semi-annual. $2.50 p.a.

JOURNAL of religious history. Sydney, Sydney University Press, 1960 to date. Semi-annual. $2.10 p.a.

PIKE, D. H. Australia; the quiet continent. Cambridge, Cambridge University Press, 1962. 22s. 6d.

ROBERTS, *Sir* Stephen. The squatting age in Australia, 1835–1847. Melbourne, Melbourne University Press, 1964. $5.50.
First published in 1935.

SCOTT, *Sir* Ernest. A short history of Australia. 8th ed. Melbourne, Oxford University Press, 1961. $3.00.

SHAW, A.G. L. The story of Australia, New ed. London, Faber, 1961. 21s.

South Australian facsimile editions. Adelaide, Libraries Board of South Australia, 1962 to date. Various prices.

Early works on South Australia, reproduced by the Public Library of South Australia.

South Australiana. Adelaide, Libraries Board of South Australia, 1962 to date. Twice yearly. $1.00 ea.

Tench, W. Sydney's first four years; being a reprint of *A narrative of the expedition to Botany Bay* and *A complete account of the settlement of Port Jackson.* Introd. and annotations by L. F. Fitzhardinge. Sydney, Angus and Robertson in association with the Royal Australian Historical Society, 1962. $5.00.

White, J. Journal of a voyage to New South Wales, by John White, surgeon-general to the First Fleet and the settlement at Port Jackson. Biographical introd. by Rex Rienits, edited by A. H. Chisholm. Sydney, Angus and Robertson in association with the Royal Australian Historical Society, 1962. $5.75.

William dixson foundation. Publications. Sydney, Trustees of the Public Library of New South Wales, 1963 to date. Various prices.

The Foundation's publication programme includes the printing of historical manuscripts, translations into English of foreign works relating to Australasia and the Pacific, and the reprinting of scarce books and documents concerning the same area.

Recent Publications of Interest

Armidale, N.S.W. University of New Engalnd. *Seminar for Historical Societies, 1966.* Local history; report on the proceedings . . . edited by Susan Cavenor. Armidale, N.S.W., 1966. $1.50.

Bartlett, N. The gold seekers. London. Jarrolds, 1965. 30s.

The story of the great Australian gold rushes.

Bassett, Marnie, *Lady.* Behind the picture; H.M.S. Rattlesnake's Australia–New Guinea cruise, 1846 to 1850. Melbourne, Oxford University Press, 1966. $5.75.

Beatty, W. A. Tales of old Australia. Sydney, Ure Smith, 1966. $4.25.

Bell, Agnes. Melbourne; John Batman's village. Melbourne, Cassell Australia, 1965. $4.75.

A history of the city from its beginnings in 1835 to the present day.

Blainey, G. The tyranny of distance; how distance shaped Australia's history. Melbourne, Sun Books, 1966. $1.95.

Bolton, G. C. A. A thousand miles away; a history of North Queensland to 1920. Brisbane, Jacaranda in association with the Australian National University, 1963. $4.95.

Bossence, W. H. Murchison; the J. G. Kenny Memorial history. Melbourne, Hawthorn Press, 1965. $4.00.

Cannon, M. The land boomers. Melbourne, Melbourne University Press, 1966. $7.50. ($2.45 paper.)

The story of the land boom in Victoria in the 1880's and of the depression which followed it.

Cayley, F. Flag of stars. Adelaide, Rigby, 1966. $3.50.

A history of the Australian flag.

Clune, F. P. Journey to Pitcairn. Sydney, Angus and Robertson, 1966. $4.75.

Crowley, F. K. South Australian history; a survey for research students. Adelaide, Libraries Board of South Australia, 1966. $4.00.

Cumpston, J. H. L. The inland sea and the great river; the story of Australian exploration. Sydney, Angus and Robertson, 1964. $4.20.

Cunningham, P. M. Two years in New South Wales, edited by D. S. Macmillan. Sydney, Angus and Robertson in association with the Royal Australian Historical Society, 1966. $7.50.

First published in 1827.

Curr, E. M. Recollections of squatting in Victoria then called the Port Phillip district. Abridged with a foreword and notes by Harley W. Forster. Melbourne, Melbourne University Press, 1965. $3.50.

First published in 1883.

Dakin, W. J. Whalemen adventures; the story of whaling in Australian waters and other southern seas related thereto, from the days of sails to modern times. Sydney, Angus and Robertson, 1963. $2.75.

First published in 1934.

Daley, Louise T. Men and a river; a history of the Richmond River district, 1828-1895. Melbourne, Melbourne University Press, 1966. $3.50.

EDWARDS, H. The islands of angry ghosts. New York, William Morrow, 1966. $4.95 (U.S.)
An account of the wreck of the *Batavia* on the Abrolhos Islands on the western coast of Australia, together with the story of an expedition which was successful in locating relics hitherto undisturbed.

FITZGERALD, C. P. A concise history of East Asia. Melbourne, Heinemann, 1966. $5.00.

GODDARD, W. G. Formosa; a study in Chinese history. London, Macmillan, 1966. 36s.

GORDON, M. Jews in Van Diemen's Land. Melbourne, Ponsford Newman & Benson, 1965. $2.50.

GREAVES, B., *ed.* The story of Bathurst; written by Bathurstians and edited by Bernard Greaves. Sydney, Angus and Robertson, 1964. $4.50.

HARRIS, A. Settlers and convicts; or, Recollections of sixteen years' labour in the Australian backwoods, by an emigrant mechanic. With a new foreword by C. M. H. Clark. Melbourne, Melbourne University Press, 1964. $3.25.

HETHERINGTON, J. A. Witness to things past: stone, brick, wood and men in early Victoria. Melbourne, Cheshire, 1964. $4.50.
An account of old and interesting buildings in Victoria.

HISTORICAL Studies, Australia and New Zealand. Eureka supplement. 2nd ed. Melbourne, Melbourne University Press, 1965. $2.00.
First published in 1954.

HISTORICAL Studies, Australia and New Zealand. Historical studies; selected articles, compiled by J. J. Eastwood and F. B. Smith. Melbourne, Melbourne University Press, 1964. $2.00. (Australian paperbounds)
Collection of articles published in *Historical studies.*

The HOBART TOWN gazette and southern reporter; a facsimile reproduction of volumes 1 & 2, May 11, 1816, June 1, 1816 to December 27, 1817. Hobart, Platypus Publications, 1965. $6.30.

The JOURNAL of Pacific history. Melbourne, Oxford University Press, 1966 to date. $3.50 p.a.

KELLY, C. Calendar of documents; Spanish voyages in the South Pacific from Alvaro de Mendana to Alejando Malaspina, 1567–1794. Madrid, Franciscan Historical Studies, 1965. 117s. 6d. (stg.)

KIDDLE, Margaret. Men of yesterday; a social history of the Western District of Victoria, 1834–1890. Melbourne, Melbourne University Press, 1965. $6.00.

MCCRAE, Georgiana. Georgiana's journal; Melbourne 1841–1865, edited by Hugh McCrae, grandson of the diarist. 2nd ed. Sydney, Angus and Robertson, 1966. $7.00.
First published in 1934.

MELVILLE, H. The history of Van Diemen's Land from the year 1824 to 1835 inclusive, during the administration of Lieutenant Governor George Arthur. Sydney, Horwitz-Grahame, 1965. $4.50.

MOOREHEAD, A. M. The fatal impact, an account of the invasion of the South Pacific, 1776–1840. London, Hamilton, 1966. 30s.

MUDIE, I. Wreck of the Admella, Adelaide, Rigby, 1966. $3.50.
This account of a famous wreck off the South Australian coast in 1859 won the Advertiser Literary Competition of 1966.

PERRY, T. M. Australia's first frontier; the spread of settlement in New South Wales, 1788–1829. Melbourne, Melbourne University Press in association with the Australian National University, 1963. $6.00.

ROBSON, L. L. The convict settlers of Australia; an inquiry into the origin and character of the convicts transported to New South Wales and Van Diemen's Land, 1787–1852. Melbourne, Melbourne University Press, 1965. $5.50.

SAYERS, C. E. Shepherd's gold; the story of Stawell. Melbourne, Cheshire, 1966. $3.75.

SERLE, A. G. The golden age; a history of the colony of Victoria. 1851–1861. Melbourne, Melbourne University Press, 1963. $7.00.

SHAW, A. G. L. Convicts and the colonies; a study of penal transportation from Great Britain and Ireland to Australia and other parts of the British Empire. London, Faber, 1966. $5.00.

STEPHENSEN, P. R. The history and description of Sydney Harbour. Adelaide, Rigby, 1966. $6.50.

SYDNEY gazette and New South Wales advertiser, a facsimile reproduction. Sydney, Trustees of the Public Library of New South Wales in association with Angus and Robertson, 1963 to date. $6.30 per v. (William Dixson Foundation. Publications.)
Three volumes, covering the period 5 March 1803, to 9 March 1806, have been issued so far.

TARLING, N. South-east Asia past and present. Melbourne, Cheshire, 1966. $5.55.

TURNBULL, C. A concise history of Australia. London, Thames and Hudson, 1965. 35s.
This outline is extensively illustrated by reproductions of historical paintings and early prints as well as photographs.

WARD, R. B. Australia. Sydney, Horwitz, 1965. 80c.

BIOGRAPHY

Standard Works in Print

Australian dictionary of biography. General editor, Douglas Pike. Melbourne, Melbourne University Press, 1966.

This definitive work is planned in 12 volumes to cover the period 1788–1938. So far, v.1, 1788–1850 A-H, edited by A. G. L. Shaw and C. M. H. Clark, has appeared. v.1, $12.00.

Australian explorers. Melbourne, Oxford University Press, 1958 to date. 45c ea.

A pamphlet series covering the famous explorers of the Australian continent and Antarctica.

Great Australians. Melbourne, Oxford University Press, 1962 to date. 55c ea.

A series of biographies, published in pamphlet form, covering historical figures in various walks of life, and including statesmen, scientists, pioneers, and businessmen.

Palmer, Vance. National portraits. 3rd enlarged ed. Melbourne, Melbourne University Press 1962. 75c. (Melbourne paperbacks.)

Who's who in Australia. Melbourne, Herald Press, 1906 to date. $14.70 ea.

Latest issue, 18th, 1965, edited by J. A. Alexander. *See also* biographical articles in *The Australian encyclopaedia.*

Recent Publications of Interest

Adams, Nancy. Family fresco. Melbourne, Cheshire, 1966. $4.50.

These memoirs include reminiscences of the educationalist, Dr Alexander Morrison, the authors' grandfather and of her father, the barrister Sir Edward Mitchell.

Bateson, C. Patrick Logan, tyrant of Brisbane Town. Sydney, Ure Smith, 1966. $3.00.

The career of Logan, explorer and commandant of the penal settlement at Moreton Bay, was cut short by murder.

Bagot, A. Coppin the great; father of the Australian theatre. Melbourne, Melbourne University Press, 1965. $6.50.

Barry, *Sir* John. The life and death of John Price; a study in the exercise of naked power. Melbourne, Melbourne University Press, 1964. $5.00.

Price was appointed commandant at Norfolk Island in 1846 and was later head of the Penal Department in Melbourne. While holding this office he was murdered by convicts.

Brennan, N. Dr Mannix. Adelaide, Rigby, 1964. $4.75.

Dr Mannix, Roman Catholic Archbishop of Melbourne from 1917 to his death in 1963, exerted great influence over public affairs in Australia.

Casey of berwick, R. G. C., *Baron.* Australian father and son. London, Collins, 1966. 36s.

The Governor-General's account of his pioneering forbears is based on family diaries.

Casey of berwick, R. G. C., *Baron.* Personal experience, 1939–1946. London, Constable, 1962. 31s.

Wartime reminiscences covering the period when the present Governor-General was successively Australian Minister to the United States, British Minister in the Middle East, and Governor of Bengal.

Casey, Maie, *Lady.* An Australian story, 1837–1907. London, M. Joseph, 1962. 25s.

Story of four generations of Australian families in the course of settling into a new environment, by the wife of the Governor-General of Australia.

Casey, Maie, *Lady.* Tides and eddies. London, M. Joseph, 1966. 30s.

These reminiscences are concerned mainly with life in England, Washington, Cairo, and India.

These reminiscences are concerned mainly with life in England, Washington, Cairo and India.

Clark, Mavis. Pastor Doug; the story of an aboriginal leader. Melbourne, Lansdowne, 1965. $3.95.

Creswell, *Sir* William. Close to the wind; the early memoirs (1866–1879) of Admiral Sir William Creswell, K.C.M.G., K.B.E. London, Heinemann, 1965. 36s.

The author of these memoirs was appointed in 1905 the first Director of the Australian naval forces.

Crocker, W. Nehru; a contemporary's estimate. London, Allen & Unwin, 1966. 28s.

Debenham, A. E. Without fear or favour; the biography of a career. Sydney, Edwards & Shaw, 1966. $2.50.

Experiences of a quarter-century as Chamber and Stipendiary Magistrate.

Dower, A. Crime chemist; the life story of Charles Anthony Taylor, scientist for the crown. London, John Long, 1965. 30s.

Edwards, C. Bruce of Melbourne; man of two worlds. London, Heinemann, 1965. 63s.

Lord Bruce was Prime Minister of Australia from 1923 to 1929. His subsequent career, in public affairs and business, has been centred largely in England.

FITZHARDINGE, L. F. William Morris Hughes; political biography. 1: That fiery particle, 1862–1914. Sydney, Angus and Robertson, 1964. $6.40.

The first volume of a definitive biography of one of Australia's best known politicians, who was Prime Minister during World War I.

GREAT people in Australian history. General editor. J. Mark Howard. Melbourne, Longmans, 1965 to date. 50c ea.

A series designed for use in primary schools.

HARTNETT, L. J. Big wheels and little wheels, as told to John Veitch. Melbourne, Lansdowne, 1964. $4.50.

Autobiography of a leading engineer and business entrepreneur who was managing director of General Motors-Holden in Australia from 1934 to 1947.

HASLUCK, Alexandra. Thomas Peel of Swan River. Melbourne, Oxford University Press, 1965. $6.00.

Biography of one of the founders of Western Australia, who attempted to launch an ambitious scheme to settle 10,000 emigrants in the new colony.

HENNING, Rachel. The letters of Rachel Henning, edited by David Adams. With a foreword and pen drawings by Norman Lindsay. Sydney, Angus and Robertson, 1966. $3.75.

First published by *The Bulletin*, 1951–2.

These letters present a picture of family life in the Victorian era in the country districts of New South Wales and Queensland.

HETHERINGTON, J. A. Australian painters; forty profiles. Melbourne, Cheshire, 1963. $4.00.

HETHERINGTON, J. A. Uncommon men. Melbourne, Cheshire, 1965. $3.60.

The author portrays a selection of notable Australians 'whose actions had in some way set them apart from the rest of their fellows'.

HEYDON, P. R. Quiet decision; a study of George Foster Pearce. Melbourne, Melbourne University Press, 1965. $6.75.

Pearce was a Senator in the Commonwealth Parliament from its inception in 1901 until 1937, and held cabinet rank for much of that period.

LA NAUZE, J. A. Alfred Deakin; a biography. Melbourne, Melbourne University Press, 1965. 2v. $13.00.

This account deals with Deakin's personal and intellectual life as well as his political career which began in the Victorian State Parliament and culminated in three terms as Prime Minister of Australia.

LEGG, F. Once more on my adventure; the life of Frank Hurley, by Frank Legg and Toni Hurley. Sydney, Ure Smith, 1966. $4.75.

A well illustrated account of the noted photographer.

LINDSAY, *Sir* Daryl. The leafy tree; my family. Melbourne, Cheshire, 1965. $3.95.

A study of one of Australia's most colourful and influential families in the field of literature and art.

LYONS, *Dame* Enid. So we take comfort. Melbourne, Heineman, 1965. $4.75.

Biography of J. A. Lyons, Prime Minister of Australia from 1931 to his death in 1939, by his widow, a notable figure in Australia public life who was the first woman elected to the House of Representatives.

MCINNES, G. Humping my bluey. London. H. Hamilton, 1966. 25s.

A sequel to the author's *The road to Gundagai*.

MACK, J. D. Matthew Flinders 1774–1814. Melbourne, Nelson Australia, 1966. $4.75.

MACMILLAN, D. S. The Kater family 1750–1965. Sydney, 1966. $4.20.

Sir Norman Kater, who died in 1965, was a member of a family who first settled in New South Wales in 1839 and subsequently was well known in the public affairs of the colony.

MCNALLY, W. Smithy; the Kingsford-Smith story. London, R. Hale, 1966. 25s.

MANSFIELD, B. Australian democrat; the career of Edward William O'Sullivan, 1846–1910. Sydney, Sydney University Press, 1965. $3.00.

O'Sullivan, journalist and politician, was a member of the New South Wales Parliament for eighteen years and Minister for Public Works from 1899 to 1904.

MAWSON, Paquita, *Lady*. Mawson of the Antarctic; the life of Sir Douglas Mawson. London, Longmans, 1964. 35s.

PAGE, *Sir* Earle. Truant surgeon; the inside story of forty years of Australian political life. Edited by Ann Mozley. Sydney, Angus and Robertson, 1963. $3.00.

Sir Earle Page was prominent in the foundation of the Country Party, its leader for many years, and for a brief period, Prime Minister of Australia.

PORTER, H. The paper chase. Sydney, Angus and Robertson, 1966. $3.25.
A further autobiographical volume by the well known Australian writer.

RIVETT, R. Australian citizen; Herbert Brookes, 1867–1963. Melbourne, Melbourne University Press, 1965. $6.50.
A study of Herbert Brookes, manufacturer and pastoralist, who took a leading part in Australian public affairs.

RONAN, T. Once there was a bagman; a memoir. Melbourne, Cassell Australia, 1966. $4.00.
A continuation of his *Packhorse and pearling boat.*

SAVA, G. A surgeon in Australia. London. Faber. 1966. 25s.

SAYERS, C. E. David Syme; a life. Melbourne, Cheshire, 1965. $7.00.
From 1860 to his death in 1908 Syme held a controlling interest in the *Age*, a newspaper which exerted power and influence over the Victorian governments of that period.

SPRATT, E. F. Eddie Ward, firebrand of East Sydney. Adelaide, Rigby, 1965. $4.50.
Ward held the Federal seat of East Sydney for the Australian Labor Party for thirty-two years.

STEVEN, Margaret. Merchant Campbell 1796–1846; a study of colonial trade. Melbourne, Oxford University Press in association with the Australian National University, 1965. $7.50
Campbell was a pioneer merchant of Sydney.

THOMPSON, J. J. M., *ed.* Five to remember, Melbourne, Lansdowne, 1964. $3.00.
Comment on five wellknown Australians by their contemporaries.

THOMPSON, J. J. M., *ed.* On lips of living men. Melbourne, Lansdowne. 1962. $3.00.
John Thompson, Australian poet and radio personality, has compiled this book from tape recordings of Australians in many fields, giving their impressions and opinions of some of the more famous of their contemporaries.

TURNBULL, C. Australian lives; Charles Whitehead; James Stephens; Peter Lalor; George Francis Train; Francis Adams; Paddy Hannan. Melbourne, Cheshire, 1965. $3.00.

WEATHERBURN, A. K. George William Evans explorer. Sydney, Angus and Robertson, 1966. $4.00.

WELLS, T. E. Michael Howe; the last and worst of the bushrangers of Van Diemen's Land; a facsimile reproduction. Hobart, Platypus Publications, 1966. $4.00.
Reproduction of the 1818 edition, which was the first unofficial book or pamphlet to be issued in Tasmania.

POLITICAL HISTORY

Standard Works in Print

A.I.P.S. monographs. Sydney, Australian Institute of Political Science, 1964 to date. 30c ea.
Reprinted from Proceedings of the Summer Schools.

AUSTRALIAN NATIONAL UNIVERSITY. *Department of Political Science. Research School of Social Sciences* Occasional papers. Canberra, 1966 to date. Various prices.

AUSTRALIAN NATIONAL UNIVERSITY. Social science monographs. Canberra, 1953 to date. Various prices.

AUSTRALIAN POLITICAL STUDIES ASSOCIATION. Monographs. Sydney, 1959 to date. Various prices.

THE BULLETIN. Sydney, Australian Consolidated Press, 1880 to date. Weekly, 20c ea.

CHIFLEY memorial lectures. Melbourne, Melbourne University A.L.P. Club. 1956 to date. Various prices.

CRISP, L. F. The Australian federal labour party, 1901–1951. London, Longmans, 1955. 25s.

DAVIES, A. F. Australian democracy; and introduction to the political system. 2nd ed. Melbourne, Longmans, 1964. $2.75.

DEAKIN, *Rt. Hon.* Alfred The federal story; the inner history of the federal cause, edited with introduction by J. A. La Nauze. Melbourne, Melbourne University Press, 1963. $3.50. ($2.00 Australian paperbounds.)

ELLIS, U. R. A history of the Australian Country Party. Melbourne, Melbourne University Press, 1963. $5.00.

LABOUR history. Canberra, Australian Society for the Study of Labour History, 1962 to date. Semi-annual. $2.00 p.a.

NATION: an independent journal of opinion. Sydney, Nation Review Company, 1958 to date. Fortnightly. 15c ea.

PARLIAMENTARY handbook of the Commonwealth of Australia. Canberra, Commonwealth Parliamentary Library, 1915 to date. $6.00 ea.
Latest issue, 15th, 1965.

POLITICS. Kensington, N.S.W., Australasian Political Studies Association, 1966 to date. $1.50 ea. Supersedes A.P.S.A. news.

SAWER, G. Australian federal politics and law, 1901–1949. Melbourne, Melbourne University Press, 1956–1966. 2v. $5.75 and $7.00.

SYDNEY studies in politics. Melbourne, Cheshire, for the Department of Government and Public Administration, University of Sydney, 1962. $1.50 ea.

Recent Publications of Interest

ALBINSKI, H. S. The Australian Labor Party and the aid to parochial schools controversy. University Park, Pennsylvania State University, 1966. $1.00. (Pennsylvania State University studies, 19.)

AUSTRALIA. *Minister for Immigration.* Australia's immigration policy, by the Hon. Hubert Opperman. Canberra, Govt. Pr, 1966. Gratis.

BRAMSTED, E. K. Goebbels and National Socialist propaganda 1925–1945. London, Cresset Press, 1965. 50s.

CALWELL, *Hon.* A. A. Labor's role in modern society. Rev. ed. Melbourne, Lansdowne, 1965. $2.50.

CAMPBELL, Enid. Freedom in Australia, by E. Campbell and H. Whitemore. Sydney, Sydney University Press, 1966. $7.00.

CAMPBELL, Enid. Parliamentary privilege in Australia. Melbourne, Melbourne University Press, 1966. $6.00.

CAMPBELL, E. The rallying point: my story of the New Guard. Melbourne, Melbourne University Press, 1965. $3.50.

This conservative organisation was active in New South Wales in the depression years of the nineteen thirties.

CASEY OF BERWICK, R. G. C., *Baron.* The future of the Commonwealth. London, Muller, 1963. 18s.

Lord Casey, the present Governor-General, was Australian Minister for External Affairs from 1951 to 1960.

CHILDE, V. G. How labor governs; a study in worker's representation in Australia, edited with a foreword by F. B. Smith. 2nd ed. Melbourne, Melbourne University Press, 1964. $3.50. ($2.25 Australian paperbounds.)

DAVIES, A. F. Private politics; a study of five political outlooks, Melbourne, Melbourne University Press, 1966. $7.00.

DUTTON, G. P. H., *ed.* Australia and the monarchy; a symposium. Melbourne, Sun Books, 1966. $1.00.

EDDY, W. H. C., *ed.* Studies in democracy, Melbourne. Cheshire, 1966. $3.75.

FORD, P. Cardinal Moran and the A.L.P.; a study of the encounter between Moran and socialism 1890–1907; its effects upon the Australian Labor Party; the foundation of catholic social thought and action in modern Australia. Melbourne, Melbourne University Press, 1966. $7.50.

GRAHAM, B. D. The formation of the Australian Country Parties. Canberra, Australian National University Press, 1966. $6.90.

HAGAN, J. Printers and politics; a history of the Australian printing unions 1850–1950. Canberra, Australian National University Press, 1966. $6.30.

HUGHES, C. A. The Prime Minister's policy speech; a case study in televised politics, by Colin A. Hughes and John S. Western. Canberra, Australian National University Press, 1966. $4.50.

KNIGHT, Ruth. Illiberal liberal; Robert Lowe in New South Wales, 1842–1850. Melbourne, Melbourne University Press, 1966. $6.00.

KRISTIANSON, G. L. The politics of patriotism; the pressure group activities of the Returned Servicemen's League. Canberra, Australian National University Press, 1966. $4.50.

LOVEDAY, P. Parliament, factions and parties; the first thirty years of responsible government in New South Wales, 1856–1889. Melbourne, Melbourne University Press, 1966. $5.50.

MCFARLANE, B. Professor Irvine's economics in Australian labour history 1913–1933. Canberra, Australian Society for the Study of Labour History, 1966. $1.00.

MAYER, H., *ed.* Australian politics; a reader. Melbourne, Cheshire, 1966. $5.50.

MENZIES, *Sir* Robert. The wit of Sir Robert Menzies. Compiled by Ray Robinson. London, Frewin. 1966. 16s.

New south wales. *Parliament. Library.* Payment of members in New South Wales; pros and cons from 1912. Sydney, Joint Library Committee of the Parliament of New South Wales, 1966. (*Its* reference monograph : 4) $1.50.

Rawson, D. W. Labor in vain? A survey of the Australian Labor Party. Melbourne, Longmans, 1966. $2.75.

Ross, A. Clunies. Australia and nuclear weapons; the case for a non-nuclear region in south-east Asia by Anthony Clunies Ross and Peter King. Sydney, Sydney University Press, 1966. $2.00.

Santamaria, B. A. The price of freedom; the Movement after ten years. Melbourne, Campion Press, 1964. $3.50.

An account of the work of the National Civic Council, of which the author, a leading Catholic, is President.

Smith, F. B. The conscription plebiscites in Australia, 1916–17. Melbourne, Victorian Historical Association, 1965. 60c.

Truman, T. Ideological groups in the Australian Labor Party and their attitudes. Brisbane, University of Queensland Press, 1965. $2.00.

(University of Queensland. Department of History and Political Science. Papers, v. 1; no. 21.)

Turner, I. Industrial labour and politics, the dynamics of the Labour Movement in Eastern Australia, 1900–1921. Canberra, Australian National University, 1965. $5.25.

West, Katharine. Power in the Liberal Party; a study in Australian politics. Melbourne, Cheshire, 1965. $5.20.

A survey covering the period from 1943 to the present.

Whitlam, E. G. Labor and the constitution; three papers. Melbourne, Fabian Society, 1965. 40c. (Victorian Fabian Society pamphlet, 11.)

Yarwood, A. T. Asian migration to Australia; the background to exclusion, 1896–1923. Melbourne, Melbourne University Press, 1967. $5.50. First published in 1964.

MILITARY AND NAVAL HISTORY

Standard Works in Print

Australia. *Department of the Army. Public Relations Directorate.* The Australian army at war; an official record of service in two hemispheres, 1939–1945. Melbourne, 1947.

Australia in the war of 1939–1945 [edited by Gavin long]. Canberra, Australian War Memorial, 1952 to date. Various prices.

The following volumes have so far appeared: Series 1 (Army), 7v.; Series 2 (Navy), 1v.; Series 3 (Air), 4v.; Series 4 (Civil), 3v.; Series 5 (Medical), 4v.

Australian war memorial, *Canberra.* Pictorial history of Australia at war, 1939–1945. Edited for the Board of Management by Norman Bartlett [and Charles Meeking]. Canberra, 1958. 5v. $23.00.

Australian war memorial, *Canberra.* With the Australians in Korea, edited . . . by Norman Bartlett. Canberra, 1954. $2.50.

Dornbusch, C E. Australian military bibliography. Cornwallville, N.Y., Hope Farm Press, 1963. $4.50 (U.S.)

Lee, J. E. Duntroon; the Royal Military College of Australia, 1911–1946. Canberra, Australian War Memorial, 1952. $3.00.

Odgers, G. The Royal Australian Air Force; an illustrated history. Sydney, Ure Smith, 1965. $6.95.

Official history of Australia in the war of 1914–1918, edited by C. E. W. Bean. Canberra, Australian War Memorial, 1921–1942. $2.10 *per v.*, 12.v. v. 11, $1.80, v. 1, 3, 8, 10, 12, *o.p.*

Recent Publications of Interest

Australia. *Minister for defence.* Defence report, 1964, Canberra, Govt Pr, 1965.

Clarke, H. V. To Sydney by stealth, by Hugh V. Clarke with Takeo Yamashita. Sydney, Horwitz, 1966. 48c.

The story behind the attack on Sydney Harbour by Japanese midget submarines in 1942.

Cumpston, J. S. The rats remain; Tobruk siege 1941. Melbourne, Greyflower, 1966. $6.00.

Harrison, K. The brave Japanese. Adelaide, Rigby, 1966. $4.25.

An objective account of a prisoner of war's experiences.

Hickling, H. One minute of time; the *Melbourne-Voyager* collision. Sydney, Reed, 1965. $3.50.

An account of the naval collision which occurred near Jervis Bay on the night of 10 February 1964.

James, R. H. Gallipoli. Sydney, Angus and Robertson, 1965. $6.30.

Keogh, E. G. South-west Pacific 1941–1945. Melbourne, Grayflower, 1965. $5.25.

Laffin, J. Anzacs at war; the story of Australian and New Zealand battles. London, Abelard-Schuman, 1965. 21s.

Laffin, J. Links with leadership; thirty centuries of command. London, Harrap, 1966. 25s.
A survey of the use which military commanders make of the lessons of the past.

Legg, F. The Gordon Bennett story. Sydney, Angus and Robertson, 1965. $4.50.
An account of a soldier's career from Gallipoli to the fall of Singapore in World War II.

Lockwood, D. W. Australia's Pearl Harbour; Darwin, 1942. Melbourne, Cassell Australia, 1966. $4.00.

Lumiere, C. Kura! Brisbane, Jacaranda, 1966. $5.25.
An account of prisoner of war camps on the Burma railway during World War II.

Macintyre, D. The battle of the Pacific. Sydney, Angus and Robertson, 1966. $4.50.

Millar, T. B. Australia's defence. Melbourne, Melbourne University Press, 1965. $2.00, paper.
The author is a Fellow in International Relations in the Australian National University and a graduate of the Royal Military College, Duntroon.

Moorehead, A. M. The desert war, 1940–1943. London, H. Hamilton, 1965. 63s.

O'Neill, R. J. The German army and the Nazi Party, 1933–1939. London, Cassell, 1966. 63s.
The author, a Rhodes Scholar, is a graduate of the Royal Military College, Duntroon, and of the University of Melbourne.

Wright, M. If I die; coast watching and guerrilla warfare behind Japanese lines. Melbourne, Lansdowne, 1965. $3.50.

PHILOSOPHY

Standard Works in Print

Australian journal of psychology. Melbourne, Melbourne University Press for the Australian Psychological Society, 1949 to date. Three issues a year. $4.00 p.a.

Australasian journal of philosophy. Sydney, Australasian Association of Philosophy, 1923 to date. Three issues a year. $4.50 p.a.

Recent Publications of Interest

Fairfax, W. The triple abyss: towards a modern synthesis. London, Bles, 1965. 45s.
The author seeks to define the place of religion, in relation to philosophy and metaphysics, in modern life.

O'Neil, W. M. An introduction to method in psychology. 2nd ed. Melbourne, Melbourne University Press, 1962. $3.00.

Passmore, J. A. Philosophical reasoning. London, Duckworth, 1965. 10s. 6d.
The author is Professor of Philosophy in the Australian National University. This work was first published in 1961.

RELIGION

Recent Publications of Interest

Australian council of churches. *Division of Mission.* Responsibility in New Guinea; report of an Australian ecumenical visit to Papua and New Guinea, June 1965. Sydney, 1965. 50c.

Barrett, J. That better country; the religious aspect of life in eastern Australia, 1835–1850. Melbourne, Melbourne University Press, 1966. $6.00.

Bayton, J. Cross over Carpentaria; being a history of the Church of Engalnd in Northern Australia from 1865–1965. Brisbane, Smith & Paterson, 1965. $3.00.

Border, J. T. R. Church and state in Australia 1788–1872; a constitutional study of the Church of England in Australia. London, S.P.C.K., 1962. 37s. 6d.

Caine, G. The peacemakers; based on *Pacem in terris;* encyclical letter on world peace by Pope John XXIII. Ballarat, Cripac Press for Mannix Centre for Christian Social Education, 1965. $1.25.

Church of england in australia. *General Synod. Prayer Book Commission.* Prayer book revision in Australia; report. Sydney, Standing Committee of the General Synod. 1966. $1.00.

Ford, Margaret. End of a beginning. Melbourne, Hodder and Stoughton, 1963. $2.50.
Relates the experiences of an Australian Inland Mission padre and his wife in Northern Queensland.

Hetherington, J. A. Pillars of the faith; churchmen and their churches in early Victoria. Melbourne, Cheshire, 1966. $5.75.

Joint commission on church union. The church, its nature, function and ordering; part one, being the second report of the . . . Commission . . . set up by the Congregational Union of Australia, the Methodist Church of Australasia and the Presbyterian Church of Australia, and part two, being the proposed basis of union of these churches. Melbourne, Aldersgate Press, for the Commission, 1963. 60c.

Loane, M. L. It is the Lord. London, Marshall, Morgan and Scott, 1965. 11s. 6d.
The author is the newly elected Anglican Archibshop of Sydney.

Maxwell, A. S. Under the southern cross; the Seventh-day Adventist story in Australia, New Zealand and the islands of the South Pacific. Nashville, Tennessee, Southern Publishing Association, 1966. $5.95 (U.S.).

Parer, M. S. The Christian and the modern world; the story of Melbourne's first ecumenical mission. Ballarat. Cripac Press. 1964. $1.00.

Rowland, E. C. A short history of the Australian Church. Sydney, Anglican Truth Society, 1960. 30c.

Southall, I., *ed.* The challenge; is the church obsolete? An Australian response to the challenge of modern society. Melbourne, Lansdowne, in association with the Australian Council of Churches, 1966. $5.00.

Suttor, T. L. Hierarchy and democracy in Australia 1788–1870; the formation of Australian Catholicism. Melbourne, Melbourne University Press, 1965. $6.50.

Van Sommers, Tess. Religions in Australia; the *Pix* series extended to 41 beliefs. Adelaide, Rigby. 1966. $4.50.
A number of these articles originally appeared in the journal *Pix*.

EDUCATION

Standard Works in Print

A.C.E.R. research series. Melbourne. Australian Council for Education Research, 1930 to date. Various prices.

Austin, A. G. Australian education, 1788–1900; church, state and public education in colonial Australia. Melbourne, Pitman, 1961. $3.25.

Austin, A. G., *ed.* Select documents in Australian education, 1788–1900. Melbourne, Pitman, 1963. $3.50.

Australia. *Committee on Australian Universities.* Report. Canberra, Govt Pr, 1957. 50c.
Chairman: Sir Keith Murray.

Australia. *Commonwealth Office of Education.* Bulletins. Sydney, 1947 to date. Limited gratis distribution.

Australia. *Commonwealth Office of Education.* Education in Australia. Sydney, 1965. Gratis.

Australia. *Universities Commission,* Report of the Australian Universities Commission on Australian universities. Canberra, Govt Pr, 1960 to date. $1.95.
Each report covers a five-year period. The latest report was issued in September 1966.

Australia. *Universities Commission. Committee on the Future of Tertiary Education in Australia.* Report. Melbourne, 1965. 3v. $6.25.
Chairman: Sir Leslie Martin.

Australian council for educational research. The early years; a summary of an enquiry into age of admission, classification and promotion practices in Australian primary schools. Melbourne, 1957. 10c.

Australian education index; a quarterly subject and author index to Australian periodical and non-periodical publications in education and psychology. Melbourne, Australian Council for Education Research, 1958 to date. $20.00 p.a.

Australian journal of adult education. Adelaide, Australian Association of Adult Education, 1961 to date. Semi-annual. 40c ea.

Australian journal of education. Melbourne, Australian Council for Educational Research, 1957 to date. Three issues a year. $2.70 p.a.

Australian library journal. Sydney, Library Association of Australia, 1951 to date. Quarterly. $4.00 p.a.

Australian pre-school quarterly. Melbourne, Australian Pre-school Association, 1960 to date. $3.00 p.a.

Australian teacher. Sydney, Teachers' Guild of New South Wales, 1923 to date. Semi-annual. 35c ea.

AUSTRALIAN university. Melbourne, Australian Vice-Chancellor's Committee, 1963 to date. Three issues a year. $2.50 p.a.

CONNELL, W. F. The foundations of education, by W. F. Connell, W. J. Campbell [and others]. 2nd ed. Sydney, Ian Novak, 1967. $4.30.

CONNELL, W. F. The foundations of secondary education. Melbourne, Australian Council for Educational Research, 1961. $2.10. (Monographs on secondary education, no. 1.)

EDUCATION news. Sydney, Commonwealth Office of Education, 1947 to date. Bi-monthly. Gratis.

FOGARTY, R. Catholic education in Australia, 1806–1950. Melbourne, Melbourne University Press, 1959. 2v. $11.00.

FORUM of education. Sydney, Teachers' College, 1924 to date. Two issues a year. $1.50 p.a.

HEMISPHERE. Sydney, Commonwealth Office of Education, 1957 to date. Monthly. $2.00 p.a.

MELBOURNE studies in education. Melbourne, Melbourne University Press, 1958 to date. Annual. Various prices.

NEW SOUTH WALES. *Committee Appointed to Survey Secondary Education in N.S.W.* Report. Sydney, Govt Pr, 1960. $1.00.
Chairman: H. S. Wyndham.

NEW SOUTH WALES. *Department of Education. Committee . . .* [*on*] *Higher Education*. First report. Sydney, 1961. $1.15.

PRICE, *Sir* Grenfell, *ed.* The humanities in Australia; a survey with special reference to the universities. Sydney, Angus and Robertson, for the Australian Humanities Research Council, 1959. $4.20.

REVIEW of education in Australia. Melbourne, Australian Council for Educational Research, 1938 to date. Irregular. Various prices. Latest issue, 1955–1962. $10.00.

SIR JOHN MORRIS memorial lectures. Hobart, Adult Education Board of Tasmania, 1958 to date. 40c ea.

Recent Publications of Interest

AUSTIN, A. G. The Australian school. Illustrated by J. Mounsey. Croydon, Melbourne, Longmans, 1966, 75c.
(Australian landmarks).

AUSTRALIA. *Committee of Inquiry into the need for a College of Advanced Education in the Australian Capital Territory.* Report. Canberra, 1966. Gratis.
Chairman: Herbert Burton.

AUSTRALIA. *Commonwealth Advisory Committee on Advanced Education.* Colleges of advanced education; first report of the Committee. Canberra, Govt Pr, 1966. $1.95.
Chairman: Ian Wark.

AUSTRALIA. *Commonwealth Office of Education.* Fees of universities and residential colleges in Australia. Sydney, 1966. (*Its* Information statement, no. 14.) Processed. Gratis.

AUSTRALIA. *Commonwealth Office of Education.* Higher education in Australia; a directory of courses. Sydney, 1966. Gratis.

AUSTRALIA. *Prime Ministers' Department.* The Commonwealth government in education. Canberra, 1966. Gratis.

AUSTRALIAN ADVISORY COUNCIL ON BIBLIOGRAPHICAL SERVICES. The development of national book resources; resolutions of the Australian Advisory Council on Bibliographical Services following on the report of the National Book Resources Development Committee. Canberra, 1965. $1.00.
Chairman of the National Book Resources Development Committee: C. A. Burmester.

AUSTRALIAN ASSOCIATION OF ADULT EDUCATION. Hand-book of Australian adult education. Sydney, 1964. $1.00.

AUSTRALIAN COLLEGE OF EDUCATION. Australia and its neighbours; an educational aspect; contributors: Viscount de L'Isle, Paul Hasluck [and others]. Melbourne, Cheshire for the Australian College of Education, 1965. $3.00.

AUSTRALIAN COLLEGE OF EDUCATION. Each to his full stature, by S. S. Dunn, R. Adam [and others]. Melbourne, Cheshire, 1965. $2.50.

AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH. A brief guide to Australian universities. 4th ed. Melbourne, 1964. $1.50.

AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE. Tertiary education in Australia. Sydney, Angus and Robertson, 1965. $1.75.

AUSTRALIAN library pamphlets series. General editor: W. L. Brown, Sydney, James Bennett, 1965 to date. $1.50 ea.
This series covers topics of general Australian library interest.

BALNAVES, F. J. Australian libraries. Melbourne, Cheshire, 1966. $2.40.

BARCAN, A. A short history of education in New South Wales. Sydney, Martindale Press, 1965. $4.55.

BASSETT, G. W. Each one is different; teaching for individual differences in the primary school; a contribution to the individual education of Australian children, arising from a conference convened by A.C.E.R. in August, 1962. Melbourne, Australian Council for Educational Research, 1964. $2.50.

BRYAN, H. Australian university libraries. London, Bingley, 1966. 13s. 6d.

CAIDEN, Naomi. A bibliography for Australian universities. Canberra, Australian National University, 1965. $1.00.

COWAN, R. W. T., *ed.* Education for Australians; a symposium. Melbourne, Cheshire, 1964. $4.00.

DILLON, J. L. Farm management as an academic discipline in Australia. Armidale, University of New England, 1966. Gratis.
Inaugural public lecture delivered on April 12, 1965.

DOW, Gwyneth. Parent, pupil and school; Victoria's education system, by Gwyneth M. Dow with contributions by R. J. Selleck, P. D. Brereton and G. McDowall. Melbourne, Cassell Australia, 1966. $1.95.

FARQUHAR, R. N. Agricultural education in Australia. Melbourne, Australian Council for Educational Research, 1966. $6.00.

FENWICK, Sara. School and children's libraries in Australia; a report to the Children's Libraries Section of the Library Association of Australia. Melbourne, Cheshire for the Library Association, 1966. 75c.

GANI, J. The condition of science in Australian universities, by J. Gani assisted by C. Bartlett, R. Rodgers, and P. Waterson. Oxford, Pergamon Press. 1963, 21s.

GRADUATE careers directory; Australia 1966. Melbourne, Careers and Appointments Services of Australian Universities, 1966. 3v. Limited gratis distribution.

HARMER, V. Music education; the background of research and opinion. Melbourne, Australian Council for Educational Research, 1965. $4.50.

HAWKINS, T. M. The Queensland great public schools; a history. Brisbane, Jacaranda, 1965. $6.30.

LIBRARY ASSOCIATION OF AUSTRALIA. *Conference, 13th, Canberra,* 1965. Papers. Sydney, 1965. 2v.

LIBRARIES BOARD OF SOUTH AUSTRALIA. Occasional papers in librarianship. Adelaide, 1965 to date. $5.00.

NEAL, W. D. The secondary school curriculum; a review of developments in Western Australia, 1958–64 with proposals for the future. Perth, Education Department of Western Australia, 1965.

OLDING, R. K., *ed.* Readings in library cataloguing. Melbourne, Cheshire, 1966. $4.00.

PHILP, H. The university and its community, by Hugh Philp, R. L. Debus, Vija Veidemanis, and W. F. Connell. Sydney, Ian Novak ,1964. $2.15.

QUEENSLAND. *University.* Jubilee celebrations. May, 1960. Brisbane, 1966. Limited gratis distribution.

QUEENSLAND. *University. Faculty of Education.* Research studies. Brisbane, University of Queensland Press, 1959 to date. Irreg. Various prices.

ROE, E. Teachers, librarians & children; a study of libraries in education. Melbourne, Cheshire 1965. $3.00.

ROONEY, C. Choosing your career; advice to school leavers and their parents. Sydney, Ure Smith, 1966. $1.00.

SANDERS, C. Technical education for development. Nedlands, University of Western Australia Press, 1966. $5.50.

SCHONELL, *Sir* Fred. Promise and performance; a study of student progress at university level, by F. J. Schonell, E. Roe and I. G. Meddleton. Brisbane, University of Queensland Press and University of London Press, 1962. $4.20. (Queensland. University—Faculty of Education. Research study, no. 2.)

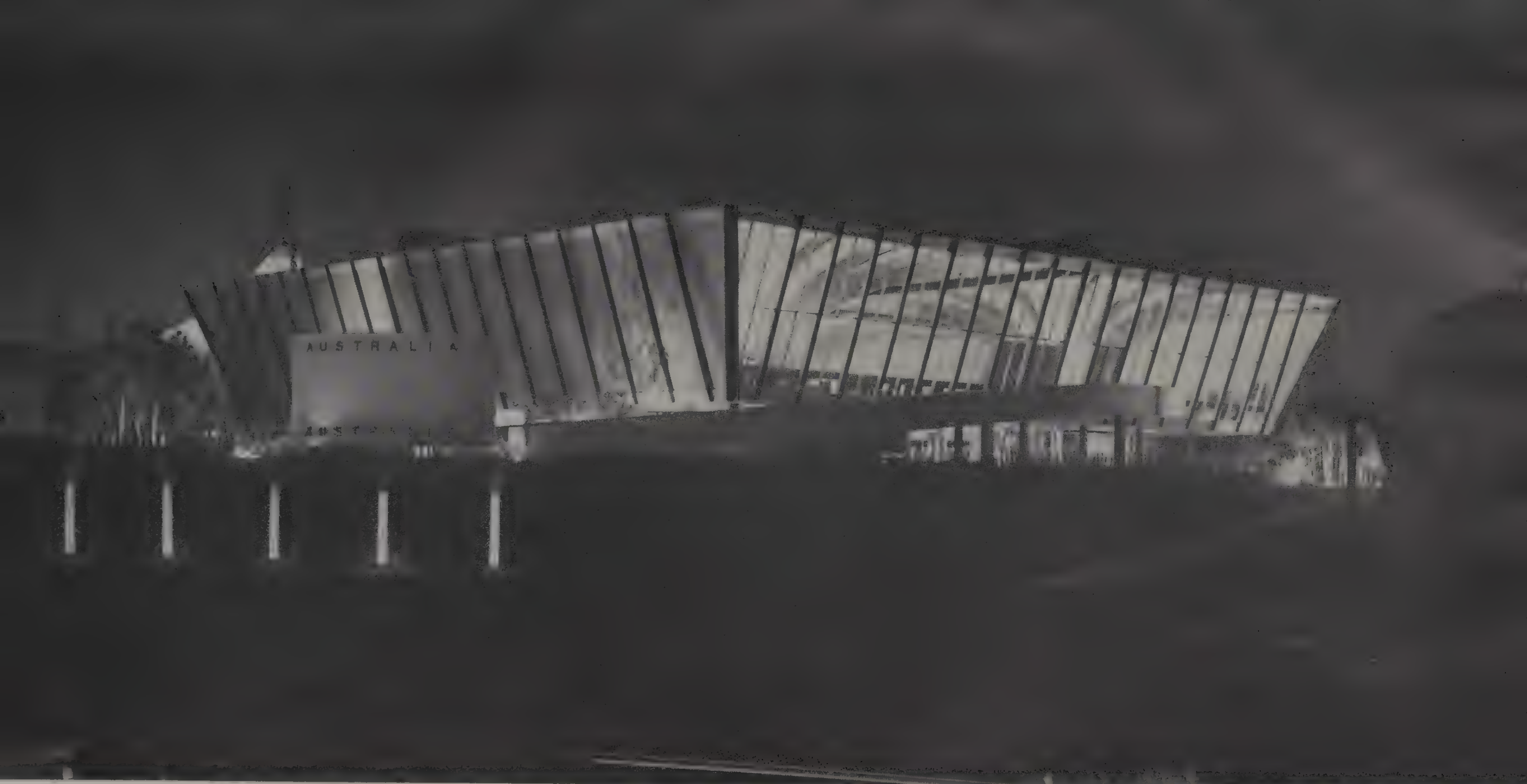

PLATE 61

Australian Pavilion at Expo 67, Montreal, Canada.

(*Photo: J. C. Maccormick, Cwlth Dept of Works*)

TAUBER, M. F. Resources of Australian libraries; summary report of a survey conducted in 1961 for the Australian Advisory Council on Bibliographical Services. Canberra, The Council, 1963. $1.00.

A condensation of the full report issued in three volumes.

VICTORIA. *Board of Inquiry into Library Services in Victoria.* Library services in Victoria; report . . . Melbourne, 1964. 60c.

Chairman: Sir John Jungwirth.

VICTORIA. *Education Department. Committee for Development of Tertiary Education in Victoria.* The development of tertiary education in Victoria, 1963–1972; report and recommendations. Melbourne, 1963. $1.25.

Chairman: Sir Alan Ramsay.

WALKER, W. G., *ed.* The principal at work; case studies in school administration. Brisbane, University of Queensland Press, 1965. $3.75.

WHEELWRIGHT, E. L., *ed.* Higher education in Australia. Melbourne, Cheshire for the Federation of University Staff Associations. 1965. $5.00.

SOCIAL CONDITIONS

Standard Works in Print

AUSTRALIAN journal of social issues. Sydney, Committee for Post Graduate Study in Social Work 1961 to date. Semi-annual. $2.00 p.a.

AUSTRALIAN journal of social work. Melbourne, Australian Association of Social Workers, 1947 to date. Semi-annual. $2.00 p.a.

AUSTRALIAN landmarks. London, Longmans, 1964 to date. Semi-annual. 75c ea.

A series covering a variety of topics which illustrate the social and economic development of Australia.

MACKAY, I. K. Broadcasting in Australia. Melbourne, Melbourne University Press, 1957. $3.00.

STOLLER, A., *ed.* The family today; its role in personal and social adjustment. Melbourne, Cheshire for the Victorian Family Council, 1962. $1.25.

STOLLER, A., *ed.*, Growing old; problems of old age in the Australian community. Melbourne, Cheshire, 1960. $1.50.

ZUBRZYCKI, J. Immigrants in Australia; a demographic survey based upon the 1954 census. Melbourne, Melbourne University Press on behalf of the Australian National University, 1960. $5.75.

ZUBRZYCKI, J. Immigrants in Australia; statistical supplement. Canberra, 1960. $3.00. (Australian National University. Social science monograph, 18.)

See also the Directories of social services agencies issued by the Councils of Social Service in the several States.

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APPLEYARD, R. T. British emigration to Australia. Canberra, Australian National University, 1964. $5.75.

AUSTRALIA. *Department of Immigration.* Professional opportunities in Australia. London, 1965. Gratis.

BILTON, J. The Royal Flying Doctor Service of Australia; its origin, growth and development. Sydney, Royal Flying Doctor Service of Australia, Federal Council, 1961. $2.00.

BORRIE, W. D. Australia's population structure and growth, by W. D. Borrie and Geraldine Spencer. 2nd ed. Melbourne, Committee for Economic Development of Australia, 1965. $2.00.

BRENNAN, T., *ed.* The foundations of social casework. Sydney, Ian Novak, 1966. $3.70.

CAMPBELL, W. J. Television and the Australian adolescent; a Sydney survey, by W. J. Campbell and Rosemary Keogh. Sydney, Angus and Robertson, 1962. $1.95.

CONFERENCE ON IMMIGRATION RESEARCH, *Canberra, 1960.* The study of immigrants in Australia; proceedings of conference, edited by C. A. Price. Canberra, Department of Demography, Australian National University, 1960. $1.00.

DAVIES, A. F., *ed.* Australian society; a sociological introduction, edited by A. F. Davies and S. Encel. Melbourne, Cheshire, 1965 $5.20.

DAWSON, Madge. Graduate and married; a report on a survey of one thousand and seventy married women graduates of the University of Sydney. Sydney, Department of Adult Education, 1965. $3.15.

DEWDNEY, M. Living on the old age pension; a study of problems, attitudes and prospects in Richmond, Victoria. Melbourne, Hospitals and Charities Commission, Victoria, 1965. $3.50.

Hodgkin, Mary. Australian training and Asian living. Nedlands, University of Western Australia Press, 1966. $3.50.
A study of Malaysian students in Western Australia since 1956, together with an account of the impact made by these students on return to their homeland.

Johnston, Margaret. Immigration assimilation (a study of Polish people in Western Australia). Perth, Paterson Brokensha, 1965. $5.50.

Katz, W. And the ark rested; the story of a Jewish community born during the holocaust in Europe. Sydney, 1966. $6.30.

Kewley, T. H. Social security in Australia. Sydney, Sydney University Press, 1965. $8.00.

Lawrence, R. J., *ed.* Community service; citizens and social welfare organisations; papers presented at the fourth National Conference on Social Service. Melbourne, Cheshire for the Australian Council of Social Service, 1966. $3.95.

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Martin, Jean. Refugee settlers; a study of displaced persons in Australia. Canberra, Australian National University, 1965. $3.75.

Nelson, N. F. To help them find their feet. Brisbane, Smith & Paterson, 1966. $5.00.
An account of the work done by churches in the guidance of young people.

Price, C. A. Jewish settlers in Australia, by C. A. Price assisted by Lilian Wilson and Elizabeth Tyler. Canberra, Australian National University, 1964. $1.80. (Australian National University. Social science monograph, 23.)

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Rennison, G. A. Man on his own; social work and industrial society. Melbourne, Melbourne University Press, 1962. $3.50.

Rischbieth, Bessie. March of Australian women; a record of fifty years struggle for equal citizenship. Perth, Paterson Brokensha, 1964. $2.75.

Roe, M. Quest for authority in eastern Australia 1835–1851. Melbourne, Melbourne University Press in Association with the Australian National University, 1965. $5.50.

Sharpe, D. R. Youth leadership and the growth of personality; talks on psychology and religion. Sydney, Ure Smith, 1966. $1.00.

Stokes, C., *ed.* 'White Australia'; time for a change. Sydney, N.S.W. Association for Immigration Reform, 1963.

Stoller, A., *ed.* New faces; immigration and family life in Australia. Melbourne, Cheshire, 1966. $3.95.

Street, Jessie, *Lady*. Truth or repose. Sydney, Australasian Book Society, 1966. $4.25.
The author is widely known as a protagonist of women's rights.

Stubbs, J. The hidden people; poverty in Australia. Melbourne, Cheshire, 1966. $3.95.

Taft, R. From stranger to citizen; a survey of studies of immigrant assimilation in Western Australia. Nedlands, University of Western Australia Press, 1965. $3.50.

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Chairman: A. G. Booth.

Wearn, Polly. The magic shoulder. Sydney, Far West Children's Health Scheme, 1966. $2.00.
An account of the organisation which provides medical aid and holidays for children living in remote areas.

Wilkes, J., *ed.* Australian cities; chaos or planned growth. Sydney, Angus and Robertson, 1966. $1.95.

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Arndt, H. W., *ed.* The Australian economy; a volume of readings, edited by H. W. Arndt and W. M. Corden. Melbourne, Cheshire, 1963. $3.00.

Arndt, H. W. The Australian trading banks. 3rd ed. Melbourne, Cheshire, 1965. $3.50.

Australia. *Committee of Economic Enquiry*. Report. Canberra, 1965. 2v. $6.00.
Chairman: Sir James Vernon.

Australia. *Commonwealth Bureau of Census and Statistics*. Australian national accounts; national income and expenditure, 1948–49 to 1961–62. Canberra, Govt Pr, 1963 to date. Annual. $1.00 ea.

AUSTRALIA. *Parliament. Decimal Currency Committee.* Report. Canberra, 1961. 90c.

AUSTRALIA AND NEW ZEALAND BANK LIMITED. Quarterly survey. Melbourne, 1951 to date. Gratis.

AUSTRALIAN economic history review. Sydney, Sydney University Press, 1956 to date. Semi-annual. $1.25 ea.

AUSTRALIAN economy. Canberra, Treasury Department, 1956 to date. Annual. Gratis.

AUSTRALIAN financial review. Sydney, Sydney Morning Herald, 1951 to date. Daily. 5c ea.

AUSTRALIAN journal of statistics. Sydney, Statistical Society of New South Wales, 1959 to date. Three issues a year. $1.00 ea.

BANK OF NEW SOUTH WALES REVIEW. Sydney. 1950 to date. Quarterly. Gratis.

BLAINEY, G. Gold and paper; a history of the National Bank of Australasia Limited. Melbourne, Georgian House, 1958, $4.20.

BUSINESS archives and history; bulletin of the Business Archives Council of Australia. Sydney, 1956 to date. Semi-annual. $1.25 ea.

BUTLIN, S. J. Australia and New Zealand Bank; the Bank of Australasia and the Union Bank of Australia Limited, 1828–1951. Melbourne, Longmans, 1961. $4.50.

COMMITTEE FOR ECONOMIC DEVELOPMENT OF AUSTRALIA. Studies. Melbourne, 1961 to date.

COPLAND, *Sir* Douglas. The adventure of growth; essays on the Australian economy and its international setting. Melbourne, Cheshire, 1960. $3.00.

COPLAND, *Sir* Douglas, *ed.* The conflict of expansion and stability; documents relating to Australian economic policy, 1942–1952, edited by D. B. Copland and R. H. Barback. Melbourne, Cheshire, 1957. $6.75.

DOWNING, R. I. National income and social accounts; an Australian study. 10th ed. Melbourne, Melbourne University Press, 1966. $1.25.

ECONOMIC papers. Sydney, Economic Society of Australia and New Zealand, New South Wales and Victorian branches, 1941 to date. Three issues a year. 60c ea.

ECONOMIC record; the journal of the Economic Society of Australia and New Zealand. Melbourne, Melbourne University Press, 1925 to date. Four issues a year. $1.40 ea.

EDWARD Shann memorial lectures in economics. Perth, University of Western Australia, 1961 to date. Various prices.

ENGLISH, SCOTTISH AND AUSTRALIAN BANK LIMITED. Research lectures. Brisbane, University of Queensland Press, 1954 to date. Various prices.

GIFFORD, J. L. K. Australian banking, by J. K. Gifford, J. Vivian Wood and A. J. Reitsma. 4th ed. Brisbane, University of Queensland Press, 1960. $5.25.

GROWTH; quarterly review of Australian economic development. Melbourne, Committee for Economic Development of Australia, 1961 to date. Irreg. Latest issue no. 10. $1.00.

I.P.A. review. Melbourne, Institute of Public Affairs, Victoria, 1947 to date. Quarterly. $9.00 p.a.

KARMEL, P. H. The structure of the Australian economy, by P. H. Karmel and Maureen Brunt. Melbourne, Cheshire, 1962. $1.85.

NANKERVIS, F. T. Descriptive economics; Australian economic institutions and problems. 7th ed. Melbourne, Longmans, 1966. $3.00.

NATIONAL BANK OF AUSTRALASIA. Monthly summary of Australian conditions. Melbourne, 1926 to date. Gratis.

PALMER, G. R. A guide to Australian economic statistics. 2nd ed. Melbourne, Macmillan, 1966. $5.50.

QUARTERLY economic review; Australia. London, Economist Intelligence Unit, 1952 to date.

RESERVE BANK OF AUSTRALIA. Statistical bulletin. Sydney, 1937 to date. Monthly. Gratis.

SHANN, E. O. G. An economic history of Australia. Melbourne, Georgian House, 1966. $7.50.

SHAW, A. G. L. Economic development of Australia. 5th ed. Melbourne, Longmans, 1966. $2.10.

TEW, J. H. B. Wealth and income; an analysis of the economic and financial systems of Australia and Great Britain. 4th ed. Melbourne, Melbourne University Press, 1965. $3.50 cloth, $2.50 paper.

TREASURY information bulletin. Canberra, Treasury Dept., 1956 to date. Quarterly. Gratis.

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AUSTRALIAN INDUSTRIES DEVELOPMENT ASSOCIATION. Development in Australia, 1965; a short review compiled for the International Industrial Conference at San Francisco, U.S.A., 13th-17th September, 1965. Melbourne, 1965. $2.00.

BOXER, A. H., *ed.* Aspects of the Australian economy. Melbourne, Melbourne University Press, 1965. $1.75.

Brash, D. T. American investment in Australian industry. Canberra, Australian National University Press, 1966. $5.40.

Butlin, N. G. Australian domestic product; investment and foreign borrowing, 1861-1938-39. Cambridge, Cambridge University Press, 1962. 65s.

Cameron, B. The theory of national income and employment. Melbourne, Cheshire, 1966. $4.20.

Committee for economic development of australia. Australia's export potential. Melbourne, 1964. $2.00.

Downing, R. I. Taxation in Australia; agenda for reform, by R. I. Downing, H. W. Arndt, A. H. Boxer, and R. L. Mathews, a group appointed by the Social Science Research Council of Australia. Melbourne, Melbourne University Press, 1964. $2.75 cloth, $1.75 paper.

Drohan, N. T., *ed.* Readings in Australian economics, edited by N. T. Drohan and J. H. Day. Melbourne, Cassell Australia, 1965. $3.25.

Firth, G. G. Rising prices in Australia. Melbourne, Committee for Economic Development of Australia, 1962. $2.00. (Committee for Economic Development of Australia. Study no. 5.)

Fitzpatrick, B. The highest bidder; a citizen's guide to problems of foreign investment in Australia, by Brian Fitzpatrick and E. L. Wheelwright. Melbourne, Lansdowne, 1965. $4.50.

Foster, H. W. A brief history of Australia's basic wage. Melbourne, Australian Bank Officials' Association, 1965. 20c.

Gelber, H. G. Australia, Britain & the EEC, 1961 to 1963. Melbourne, Oxford University Press, 1966. $9.50.

Grant, J. McB,, *ed.* Economics; an Australian introduction, edited by J. McB. Grant and A. J. Hagger. Melbourne, Cheshire, 1964. $2.75.

Guidebook to the Australian economy, 1965. Sydney, W. D. Scott & Co., 1966 to date. Issued to subscribers to the W. D. Scott Economic Advisory Service. $30 to non-subscribers.

Hancock, K., *ed.* The national income and social welfare. Melbourne, Cheshire for the Australian Council of Social Service, 1965. $3.75.

Hirst, R. R., *ed.* Studies in the Australian capital market, by R. R. Hirst and R. H. Wallace. Melbourne, Cheshire, 1964. $5.00.

International banking summer school, 18th, *University of Melbourne, February, 1965.* The role of banks in a rapidly developing economy; lectures delivered at the . . . Summer School. Melbourne, Banker's Institute of Australasia, 1965. $1.50.

International congress on human relations, *Melbourne, 3rd-5th May, 1965.* The social and economic impact of automation and technical change. Melbourne, Federal Promotions, 1965. $2.00.

Kelly, J. H. Struggle for the north. Sydney, Australasian Book Society, 1966. $4.25.
The author, a consultant on rural industry, has outlined a programme for the economic development of the north of Australia.

Merry, D. Investment in Australia; a complete guide, by Donald Merry and Gordon Bruns. Melbourne, Penguin Books, 1965. 85c.

Perkins, J. O. N. Anti-cyclical policy in Australia, 1960–1966. Melbourne, Melbourne University Press, 1967. 75c.

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A description of its origin and objectives.

Starke, J. G., *ed.* The protection and encouragement of private foreign investment. Sydney, Butterworth, 1966. $9.50.
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Symposium on population, food and australia. Proceedings. Sydney, University of New South Wales, 1965. $2.00.

Victorian chamber of manufactures. The Australian economy today and tomorrow; an economic forum . . . 8th September, 1965. Melbourne, 1965. $3.00.

Victorian chamber of manufactures. Export handbook. Melbourne, 1966. $1.00.

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Standard Works in Print

Foenander, O. de R. Better employment relations and other essays in labour. Sydney, Law Book Company, 1954. $3.00.

Foenander, O. de R. Industrial conciliation and arbitration in Australia. Sydney, Law Book Company, 1959. $5.50.

FOENANDER, O. de R. Trade unionism in Australia; some aspects. Sydney, Law Book Company, 1962. $6.30.

INDUSTRIAL information bulletin. Melbourne, Department of Labour and National Service, 1946 to date. Monthly. $11.00 p.a.

JOURNAL of industrial relations. Sydney, Industrial Relations Society, 1959 to date. Three issues a year. $1.00 p.a.

PERLMAN, M. Judges in industry; a study of labour arbitration in Australia. Melbourne, Melbourne University Press, 1954. $4.20.

SYKES, E. I. Strike law in Australia. Sydney, Law Book Company, 1960. $6.30.

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ADELAIDE. University. *Summer School of Business Administration, 8th, 1963.* Labour problems in the Australian economy. Adelaide, Hyde Park Press, 1963. 60c.

FOENANDER, O. de R. Shop stewards and shop committees; a study in trade unionism and industrial relations in Australia. Melbourne, Melbourne University Press, 1965. $3.75.

GOLLAN, R. The coalminers of New South Wales; a history of the union, 1860–1960. Melbourne, Melbourne University Press in association with the Australian National University, 1963. $5.00.

HUTSON, J. Penal colony to penal powers. Sydney, Amalgamated Engineering Union, 1966. $1.50. An historical survey of the introduction of compulsory industrial arbitration in Australia.

ISAAC, J. E. Trends in Australian industrial relations. Melbourne, Melbourne University Press, 1962. 50c.

O'DEA, R. Industrial relations in Australia. Sydney, West Publishing Corporation, 1965. $5.50.

PERES, N. J. C. Human factors in industrial strains. Melbourne, Tait Publishing Company, 1964. $3.00.

SHELDON, G. Industrial siege; the Mount Isa dispute. Melbourne, Cheshire, 1965. $3.95.
This dispute, which lasted nearly eight months, brought the mine's activities to a standstill and had far-reaching effects on Australia's economy.

SYKES, E. I. The employer, the employee and the law. 2nd ed. Sydney, Law Book Company, 1964. $3.00.

INDUSTRIES, RESOURCES, TRADE, AND COMMUNICATIONS

Standard Works in Print

ANDREWS, J. Australia's resources and their utilisation. Rev. ed. Sydney, Department of Adult Education, University of Sydney, 1965. $1.00.

AUSTRALASIAN INSTITUTE OF MINING AND METALLURGY. Proceedings; new series. Melbourne, 1912 to date. Quarterly. $6.30 ea.

AUSTRALASIAN manufacturer industrial annual. Sydney, Manufacturer Publishing Company, 1931 to date. $4.00 p.a.

AUSTRALIA. *Bureau of Agricultural Economics.* Quarterly review of agricultural economics. Canberra, 1948 to date. Gratis.

AUSTRALIA today; special number of the *Australian traveller.* Melbourne, United Commercial Traveller's Association of Australia, 1905 to date. Annual. $1.00 ea.

AUSTRALIAN directory of exports. Brighton, Vic., P. Isaacson, 1964 to date. $10.50 ea.

AUSTRALIAN journal of agricultural economics. Sydney, Australian Agricultural Economics Society, 1957 to date. Semi-annual. $3.00 ea.

AUSTRALIAN mineral industry review. Canberra, Commonwealth Bureau of Mineral Resources, Geology and Geophysics, 1948 to date. Annual. $3.00 ea.

AUSTRALIAN transport. Sydney, Institute of Transport, 1937 to date. Quarterly. 25c ea.

BROGDEN. S. The history of Australian aviation. Melbourne, Hawthorn Press, 1960. $3.50.

BUSINESS review. Sydney, West Publishing Corporation, 1958 to date. Monthly. $7.50 p.a.

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DAVIDSON, F. G. The industrialisation of Australia. 3rd ed. Melbourne, Melbourne University Press, 1962. 55c. o.p., 4th ed. in preparation.

DRANE, N. T., *ed.* The Australian dairy industry; an economic study, edited by N. T. Drane and H. R. Edwards. Melbourne, Cheshire, 1961. $8.40.

DUNSDORFS, E. The Australian wheat growing industry, 1788–1948. Melbourne, Melbourne University Press. 1956. $6.30.

FARM policy. Perth, University of Western Australia, Institute of Agriculture, 1963 to date. Quarterly. $2.00 p.a.

FORSTER, C. Industrial development in Australia, 1920–1930. Canberra, Australian National University, 1964. $4.50.

GANGE, M. D. Water in Australia, by M. D. Gange and W. P. Dunk. Melbourne, Cheshire, 1965. $1.20.

HUGHES, Helen. The Australian iron and steel industry, 1948–1962. Melbourne, Melbourne University Press, 1964. $5.00.

JAMES, W. Wine in Australia; a handbook. 4th revised ed. Melbourne, Georgian House. 1966. $2.50.

JOBSON'S investment digest year book; public companies of Australia and New Zealand. Sydney, Jobson's Financial Services, 1928 to date. $13.50 ea.

JOBSON'S mining year book. Sydney, Jobson's Financial Services, 1957 to date. $6.00 ea.

LEADERS of industry and commerce in Australia. International ed. 1963–64. Melbourne, I. A. Iverson Publicity Services, 1963. $42.00.

MAJOR development projects: Australia. Canberra, Department of National Development, 1954 to date. Issued every two years. $1.00 ea.

MUNZ, H. The Australian wool industry, Melbourne, Cheshire, 1964. $5.00.

NEW SOUTH WALES. *Premier's Department* . . . Preliminary survey of resources [of various regions] Sydney, Govt Pr, 1945 to date. Various prices.

This series aims at covering all regions of New South Wales. So far the following have been issued: New England; Illawarra; Lachlan; Murrumbidgee; Macquarie; Central Murray; Upper Murray; Richmond-Tweed; Clarence; Southern Tablelands; Newcastle; Monaro-South Coast; Namoi; Upper Hunter; Oxley; Mitchell.

PASTORAL review and graziers' record. Melbourne, Pastoral Review, 1891 to date. Monthly. $5.50 p.a.

PORT of Melbourne quarterly. Melbourne, Melbourne Harbour Trust Commissioners, 1949 to date. 20c ea.

PORT of Sydney. Sydney, Maritime Services Board of N.S.W., 1946 to date. Two issues a year. Gratis.

REITSMA, A. J. Trade protection in Australia. Brisbane, University of Queensland Press, 1960. $4.00.

RYDGE'S. Sydney. Rydge's Business Journal, 1928 to date. Monthly. $8.50 p.a.

TIMBER supply review. Canberra, Department of National Development, 1951 to date. Semi-annual. Gratis.

UNIVERSAL business directories. North Sydney, Universal business directories (Aust.) Pty Ltd, 1948 to date. Annual. Various prices.

This series covers the capital cities and localities of the several States.

VICTORIA. *Central Planning Authority*. Resources survey. Melbourne, 1948 to date. Various prices.

Surveys for the following regions have so far been published; Loddon; Mallee; Upper Goulburn; Upper Murray; Central Highlands; East Gippsland; Corangamite; Glenelg; Wimmera; Goulburn.

WADHAM, *Sir* Samuel. Land utilization in Australia. 4th ed. by Sir Samuel Wadham, R. Kent Wilson and Joyce Wood. Melbourne, Melbourne University Press, 1964. $5.00.

WATER resources newsletter. Issued under the auspices of the Australian Water Resources Council. Canberra, Department of National Development, 1963 to date. Semi-annual. Gratis.

WESTERN AUSTRALIA. University. *Institute of Agriculture*. Research reports. Perth, 1962 to date. Latest report, no. 9, $1.00.

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AUSTRALIA. *Bureau of Agricultural Economics*. Supplement to the statistical handbook of the sheep and wool industry. 3rd ed. Canberra, 1964. Gratis.

Australia. *Government Printing Office.* Style manual for authors and printers of Australian Government publications. Canberra, 1966. $4.00.

Australian wool board. Report and recommendations on wool marketing presented to the Australian Wool Industry Conference, Canberra, July, 1964. Melbourne, 1964. Gratis.

Bailey, J. D. A hundred years of pastoral banking; a history of the Australian Mercantile Land & Finance Company 1863–1963. Oxford, Clarendon Press, 1966. 55s.

Barrett, A. R. History of the War Service Land Settlement Scheme, Western Australia. Perth. Department of Agriculture, 1966. Gratis.

Barwick, *Sir* Garfield. Trade practices in a developing economy. Canberra, Govt Pr, 1963, (G. L. Wood memorial lecture, 1963.) Gratis from the Attorney-General's Department.

Basinski, J. J. Cotton growing in Australia; an agronomic survey. Melbourne, CSIRO, 1963, 50c.

Blaikie, G. Remember Smith's Weekly? a biography of an uninhibited national Australian newspaper born: 1 March 1919, died: 28 October 1950. Adelaide, Rigby, 1966. $4.25.

Blainey, G. Mines in the spinifex; the story of Mt Isa mines. Sydney, Angus and Robertson. 1960. $2.95.

Bray, T. C. A newspaper's role in modern society. Brisbane, University of Queensland Press, 1965. 45c.

Public lecture delivered at the University of Queensland, 24 October 1963.

Brightwell, J. A. Road transport, by J. A. Brightwell and J. A. Maddock. Sydney, West Publishing Corporation, 1966. $3.50.

Campbell, L. Moonie and oil search; the story of the discovery of oil in Australia with historical and technical background to oil search. Sydney, Edwards & Shaw, 1964. $3.00.

Collas, P. Australian postage stamps. Brisbane, Jacaranda, 1965. $3.75.

Davidson, B. R. The northern myth; a study of the physical and economic limits to agricultural and pastoral development in tropical Australia. 2nd ed. Melbourne, Melbourne University Press, 1966. $6.50.

Directory of Australian booksellers. Sydney, Australian Book Trade Advisory Committee, 1965. $6.50. (New ed., available February 1967).

Dunstan, K. Supporting a column. Melbourne, Cassell Australia, 1966. $3.25.

An account, by a well known journalist, of the trials encountered in writing a daily newspaper column.

Finch, A. Pens & ems in Australia, Adelaide, Rigby, 1965. $3.00.

Anecdotal history of newspapers in Australia.

Forest resources newsletter. Issued under the auspices of the Australian Forestry Council. Canberra, Department of National Development, 1965 to date. Gratis.

Fysh, *Sir* Hudson. Qantas rising; the autobiography of the flying Fysh. Sydney, Angus and Robertson, 1965. $5.25.

An informal account, by the founder, of one of Australia's first airlines, Queensland and Northern Territory Aerial Services, which became Qantas Empire Airways.

Gough, Marian. Queensland, industrial enigma; manufacturing in the economic development of Queensland, by Marian Gough, G. R. Palmer and B. J. McFarlane. Melbourne, Melbourne University Press, 1964. $5.00.

Hanley, T. Collecting Australian coins, by Tom Hanley and Bill James. Sydney, Murray, 1966. $4.25.

Harris, kerr, forster & company. Australia's travel and tourist industry, 1965. New York, 1965. $10.00 (U.S.).

Heathcote, R. L. Back of Bourke; a study of land appraisal and settlement in semi-arid Australia. Melbourne, Melbourne University Press, 1965. $6.50.

Hunter, A., *ed.* The economics of Australian industry studies in environment and structure. Melbourne, Melbourne University Press, 1965. $6.50.

Hutton, J. Manufacturing industry and Western Australian development. Perth, University of Western Australia Press, 1966. $7.50.

Joy, W. The aviators. Sydney, Shakespeare Head Press, 1965. $3.75.

Kiwi polish company pty ltd. Kiwi international since 1906. Melbourne, 1966. Limited gratis distribution.

Lake, M. E. Hunter wine. Brisbane, Jacaranda, 1964. $2.50.

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McLeod, I. A., *ed.* Australian mineral industry; the mineral deposits. Canberra, Department of National Development, 1965. $12.00 Separate chapters available for 25c ea.
(Australia. *Department of National Development.* Bulletin, 72.)

Market research society of australia. *New South Wales Division.* Applications of marketing research; the Australian case. Sydney, 1965. $4.00.

Murphy, D. F. The Australian wine guide. Melbourne, Sun Books, 1966. $1.35.

Palmer, Joan. From plough to porterhouse; a Hereford history. Melbourne, Cheshire, 1966. $4.20.

Pocock, B. M., *ed.* Australian marketing projects; the Hoover awards for marketing, 1964. Sydney, Hoover Awards for Marketing, 1966. $5.25.

Ruhen, O. Harpoon in my hand. Sydney, Angus and Robertson, 1966. $3.75.
An account of whaling in Pacific waters around Tonga.

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Acts passed since 1950 are included in annual supplementary volumes. $7.00. ea

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This work is kept up to date by cumulative supplements issued annually. A second edition of v. 3–5, dealing with Companies, was issued in 1964.

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ELSE-MITCHELL, R. Essays on the Australian constitution. 2nd ed. Sydney, Law Book Company, 1961. $6.30.

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FLEMING, J. G. The law of torts. Sydney, Law Book Company, 1965. $11.00.

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The author, who was a Victorian Rhodes Scholar, is Rector of Exeter College, Oxford.

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BURNS, A. L. Nuclear dispersal in Asia and the Indo-Pacific region, by A. L. Burns, Nina Heathcote and G. P. King. Canberra, Australian Institute of International Affairs in collaboration with Australian National University, 1965. $1.50.

CAIRNS, J. F. living with Asia. 2nd ed. Melbourne, Lansdowne, 1966. $4.50 cloth, $2.95 paper.
The author is a member of the Commonwealth Parliament.

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ESTHUS, R. E. From enmity to alliance; U.S.-Australian relations, 1931–1941. Melbourne, Melbourne University Press, 1965. $4.50.

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The author is Professor of International Relations in the Australian National University.

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The author is permanent head of the Commonwealth Department of External Affairs.

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The author is a senior lecturer in geography in the University of Melbourne.

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AUSTRALIA. *Prime Minister's Department.* Commonwealth of Australia directory (formerly *The Federal guide*) to the Office of the Governor-General, the Parliament, the executive governments- the judiciary, departments, and authorities. Canberra, Govt Pr, 1961 to date. Annual 50c. Amendments. 1962 to date. Irreg.

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CHARTERED accountant in Australia. Sydney, Institute of Chartered Accountants in Australia, 1930 to date. Monthly. $3.00 p.a.

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DONNELLY, A. S. Australian secretarial practice. 2nd ed. Sydney, Butterworth, 1962. $6.25.

DONNELLY, A. S. The practice of public accounting. 2nd ed. Sydney, Butterworth, 1963. $4.65.

HUNT, T. M. The Australian executive's manual. Sydney, Rydge's Business Journal, 1951. $8.40.

O'BRIEN, G. M. The Australian police forces. Melbourne, Oxford University Press, 1960. $3.00.

PERSONNEL practice bulletin. Canberra, Department of Labour and National Service, 1945 to date. Quarterly. $2.00 p.a.

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SHIRE and municipal record. Sydney, Law Book Company, 1908 to date. Monthly. $4.00 p.a.

SPANN, R. N., *ed.* Public administration in Australia. 2nd ed. Sydney, Govt Pr, 1965. $4.75.

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BARWICK, *Sir* Garfield. Administrative features of legislation on restrictive trade practices. Canberra, Royal Institute of Public Administration, A.C.T. Group, 1964. (Robert Garran memorial lecture, 1963.)
When this address was given the author was Attorney-General of the Commonwealth.

CAIDEN, G. E. Career service; an introduction to the history of personnel administration in the Commonwealth Public Service, 1901–1961. Melbourne, Melbourne University Press, 1965. $8.50.

CHAMBERS, R. J. Accounting and Action; an introduction to the methods and scope of accounting. Sydney, Law Book Company, 1965. $4.20.

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CRAWFORD, *Sir* John. Responsibilities of management in a growing economy. Melbourne, Australian Institute of Management, 1965. (John Storey memorial lecture, no. 2.)

DONNELLY, A. S. Financial management. 2nd ed. Sydney, Butterworth, 1966. $4.90.

FORELL, C. R. How we are governed. Melbourne, Cheshire, 1964. $2.10.

HULLS, C. A. Readings in Australian accountancy. 2nd ed. Sydney, Butterworth, 1965. $7.75.

IRISH, R. A. Auditing; a comprehensive treatise on modern auditing practice. 3rd ed. Sydney, Law Book Company, 1966. $6.80.

LEACH, R. H. Interstate relations in Australia. Lexington, University of Kentucky Press, 1965. $6.00 (U.S.)

MAIDEN, H. E. The history of local government in New South Wales. Sydney, Angus and Robertson, 1966. $6.30.

MENZIES, *Sir* Robert. The interdependence of political and industrial leadership in the modern state. London, British Institute of Management, 1964. 5s. (Baillieu lecture, 1st.)

RAMSAY, R. A. Managers and men. Sydney, Ure Smith, 1966. $3.25.

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YORSTON, R. K. Accounting fundamentals . . . by R. K. Yorston, E. B. Smyth and S. R. Brown. 6th ed. Sydney, Law Book Company, 1966. $6.60.

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YUILL, B. An outline of organisational principles for management. Sydney, West Publishing Corporation, 1966. $5.50.

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AUSTRALIAN journal of experimental biology and medical science. Adelaide, Medical Sciences Club, University of Adelaide, 1924 to date. Bi-monthly. $10.00 p.a.

GANDEVIA, B. An annotated bibliography of the history of medicine in Australia. Sydney, Australasian Medical Publishing Company, 1957. $3.50. (British Medical Association in Australia. *Federal Council.* Monographs, no. 1.)

HEALTH. Canberra, Department of Health, 1923 to date. Quarterly. Gratis.

MEDICAL directory of Australia. Sydney, Australasian Medical Publishing Company, 1935 to date. Irreg. $12.00.
Latest issue, 1966.

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The author is an Australian dentist.

BURNET, *Sir* Macfarlane. Biology and the appreciation of life. Melbourne, Australian Broadcasting Commission, 1966. 20c. (Boyer lectures, 1966.)

CLEMENTS, F. W. Diet in health and disease, by F. W. Clements and Josephine F. Rogers. Sydney. Reed. 1966. $6.00.

ECCLES, *Sir* John. The brain and the person. Sydney, Australian Broadcasting Commission, 1966. (Boyer lectures, 1965.)

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The author is director of the Cairnmillar Institute Melbourne.

SELZER, A. The heart; its function in health and disease. Sydney, Angus and Robertson, 1966. $6.50. (Perspectives in medicine.)

TOWNLEY, R. Heart disease and common sense. Sydney, Angus and Robertson, 1965. $1.75.

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AUSTRALIAN journal of botany. Melbourne, C.S.I.R.O., 1953 to date. Irreg. $1.00 ea.

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AUSTRALIAN journal of physics. Melbourne, C.S.I.R.O., 1951 to date. Bi-monthly. $4.00 p.a.

AUSTRALIAN journal of science. Sydney, Australian and New Zealand Association for the Advancement of Science, 1938 to date. Monthly. $10.00 p.a.

AUSTRALIAN journal of soil research. Melbourne, C.S.I.R.O., 1963 to date. Irreg. $1.00 ea.

AUSTRALIAN ROAD RESEARCH BOARD, *Conference.* Proceedings. Melbourne, 1962 to date. Bi-annual. $6.00 ea.

AUSTRALIAN science index. Melbourne, C.S.I.R.O., 1957 to date. Monthly. Gratis.

AUSTRALIAN veterinary journal. Sydney, Australian Veterinary Association, 1925 to date. Monthly. $14.00 p.a.

AUSTRALIAN zoologist. Sydney, Royal Zoological Society of N.S.W., 1914 to date. Irreg. $1.50 ea.

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KELLEY, R. B. Principles and methods of animal-breeding. 3rd ed. Sydney, Angus and Robertson, 1960. $4.80 (Agricultural and livestock series.)

KELLEY, R. B. Sheep dogs; their breeding, maintenance and training. 3rd ed. (reprint) Sydney, Angus and Robertson, 1958. $3.00. (Agricultural and livestock series.)

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MCLUCKIE, J. Australian and New Zealand botany, by John McLuckie and H. S. McKee. Sydney. Horwitz, 1962. $8.40.
First published in 1954.

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PEARSON, R. G. Timber engineering design handbook, by R. G. Pearson, N. H. Kloot and J. D. Boyd. Brisbane, C.S.I.R.O. in association with Jacaranda, 1966. $4.50.

PENFOLD, A. R. The eucalypts; botany, cultivation, chemistry, and utilization, by A. R. Penfold and J. L. Willis. London, Leonard Hill, 1961. 80s. (World crops books.)

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SEDDON, H. R. The development of veterinary science in Australia. Brisbane, University of Queensland Press, 1964. 75c.

STEPHENS, C. G. A manual of Australian soils. 3rd ed. Melbourne, C.S.I.R.O., 1962. $3.00.

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Burbridge, Nancy. Australian grasses 1; illustrated handbook of the grasses of the Australian Capital Territory and adjacent areas of N.S.W. Sydney, Angus and Robertson, 1966. $6.50.

Butler, S. T., *ed.* Atoms to Andromeda; selected lectures on theoretical physics, high energy nuclear and cosmic ray research, edited by S. T. Butler (and) H. Messel. Sydney, Shakespeare Head, 1966. $8.40.

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Butler, S. T., *ed.* Time; selected lectures on time and relativity, the arrow of time and the relation of geological and biological time and on men of science. Sydney, Shakespeare Head, 1965. $8.40.

Lectures contributed in the Nuclear Research Foundation Summer Science School for fourth-year high school students, January, 1965.

Commonwealth mining and metallurgical congress, 8*th*, *Australia and New Zealand*, 1965. [Proceedings and handbook] Melbourne, 1965. 6v. $52.50.

Currie, *Sir* George. The origins of C.S.I.R.O.; science and the Commonwealth Government 1901–1926. [by] Sir George Currie [and] John Graham. Melbourne, Commonwealth Scientific and Industrial Research Organization, 1966. $4.00.

Fenner, F. Myxomatosis, by Frank Fenner and F. N. Ratcliffe. Cambridge, University Press, 1965. 100s.

Filson, R. B. The lichens and mosses of Mac.Robertson Land. Melbourne, Antarctic Division Department of External Affairs, 1966. $9.00. (ANARE scientific reports, series B (11) Botany.)

Gregory, J. N. The world of radioisotopes. Sydney, Angus and Robertson in association with the Australian Atomic Energy Commission, 1966. $5.00.

James, W. Collecting Australian gemstones. Sydney, Murray, 1966. $4.25.

Lyne, A. G., *ed.* Biology of the skin and hair growth; proceedings of a symposium held at Canberra, Australia, August 1964, edited by A. G. Lyne and B. F. Short. Sydney, Angus and Robertson, 1965. $21.00.

Mullins, B. G., *comp.* Horse management in Australia; a comprehensive manual for the owner-rider. Sydney, Horwitz, 1965. 95c.

Newell, W. The Australian sky. Brisbane, Jacaranda. 1966. $1.45.

Ovington, I. D. The role of forestry; an inaugural lecture delivered at Canberra on 10 September 1965. Canberra, Australian National University, 1965. 50c.

Sharp, W. W. Australian methods of building construction. 3rd ed. Sydney, Angus and Robertson, 1966. $3.75.

Shields, A. Australian weather. Brisbane, Jacaranda, 1966. $1.45.

Taylor, W. H. Concrete technology and practice. Sydney, Angus and Robertson, 1965. $10.00.

Yeates, N. T. M. Modern aspects of animal production. London, Butterworth, 1965. 90s.

NATURAL HISTORY

Standard Works in Print

Allan, C. M. Joyce. Australian shells. Melbourne, Georgian House, 1962. $11.00.

First published in 1950.

Australia. *Commonwealth Forestry and Timber Bureau.* Forest trees of Australia. Canberra, 1957. $4.20.

Australian natural history. Sydney, 1921 to date. Quarterly. 30c. ea.

Prior to 1962 entitled *Australian museum magazine.*

BARRETT, C. L. Butterflies of Australia and New Guinea, by C. L. Barrett and A. N. Burns. Melbourne, Seward, 1952. $5.50.

CAYLEY, N. W. What bird is that? a guide to the birds of Australia. 4th ed. Sydney, Angus and Robertson, 1966. $5.50.

CHISHOLM, A. H., *ed.* Land of Wonder; the best Australian nature writing. Sydney, Angus and Robertson, 1966. $4.50.

DAKIN, W. J. Australian seashores; a guide for the beach-lover, the naturalist, the shore fisherman, and the student, by William J. Dakin, assisted by Isobel Bennett and Elizabeth Pope. 2nd ed. Sydney, Angus and Robertson, 1966. $6.60.

DAKIN, W. J. The Great Barrier Reef and some mention of other Australian coral reefs, by William J. Dakin. 2nd ed. revised by Isobel Bennett. Sydney, Ure Smith in association with the Australian National Travel Association, 1963. $3.95.

HARRIS, Thistle. Wild flowers of Australia. 6th ed. Sydney, Angus and Robertson, 1966. $6.50.
First published in 1938.

JACARANDA pocket guides. Brisbane, Jacaranda, 1960 to date. $1.45 ea.
A series covering widely the flora and fauna of Australia.

LEACH, J. A. An Australian bird book; a complete guide to the birds of Australia. Revised and re-written by Philip Crosbie Morrison. 9th ed. Melbourne, Whitcombe & Tombs, 1961. $3.25.

McKEOWN, K. C. Australian spiders. 3rd ed., revised by N. L. Roberts. Sydney, Angus and Robertson, 1963. $2.75 cloth, $1.75 paper. (Sirius books.)
First published in 1936 as *Spider wonders of Australia.*

NICHOLLS, W. H. Orchids of Australia; drawn in natural colour by W. H. Nichols with descriptive text. Introduction by S. T. White, Melbourne, Georgian House, 1951. 4pts. 1-3, $15.00 ea. pt. 4, $18.00.

ROUGHLEY, T. C. Wonders of the Great Barrier Reef. 13th ed. Sydney, Angus and Robertson, 1966. $5.00.

STEAD, D. G. Sharks and rays of Australian seas. Sydney, Angus and Robertson, 1963. $6.30.

TROUGHTON, E. le G. Furred animals of Australia. 8th ed. Sydney, Angus and Robertson, 1965. $5.00.

WILDLIFE in Australia. Brisbane, Wildlife Preservation Society of Queensland, 1963 to date. Quarterly. $1.60 p.a.

WORRELL, E. Reptiles of Australia; crocodiles, turtles, tortoises, lizards, snakes; describing all Australian species, their appearance, their haunts, their habits. Sydney, Angus and Robertson, 1963. $5.95.

Recent Publications of Interest

BREEDEN, S. The life of the kangaroo, by Stanley and Kay Breeden. Sydney, Angus and Robertson, 1966. $3.50.

DURELL, G. Two in the bush. Illustrated by B. L. Driscoll. London, Collins, 1966. 25s.

EASTMAN, W. R. The parrots of Australia, by W. R. Eastman and A. C. Hunt. Sydney, Angus and Robertson, 1964. $10.00.

FRAUCA, H. The book of Australian wild life; a panoramic view of Australian animals from insects to the high mammals. Melbourne, Heinemann, 1965. $4.20.

GRZIMEK, B. Four-legged Australians; adventures with animals and men in Australia. London, Collins, 1967.

HARRIS, Thistle. Australian plant life. Sydney, Nelson Doubleday (Australia), 1966. 75c.

HINDWOOD, K. Australian birds in colour, Sydney, Reed, 1966. $3.25.

JOHNSON, Vera Scarth–. Wild flowers of the warm east coast. Brisbane, Jacaranda, 1966.

KEAST, A. Australia and the Pacific Islands; a natural history. London, H. Hamilton, 1966. 105s. (The continents we live on)

KEAST, A. Australian bush sounds, by A. Keast and Carl Weismann. Brisbane, Jacaranda, 1966. $2.95.

LAMOND, H. G. Etiquette of battle. Melbourne, Lansdowne, 1966. $4.25.
Stories of wild life in Australia, covering both native and introduced fauna.

LINDSAY, H. A. The bushman's handbook; a practical guide for finding water, snaring game, catching fish, direction finding, camping, survival in an emergency, and general bushcraft. 4th ed. Brisbane, Jacaranda, 1964. $1.45 paper.

Lurie, R. Under the Great Barrier Reef. London, Jarrolds, 1966. 27s. 6d.

McKeon, Gwladys. Life on the seashore. Brisbane, Jacaranda, 1966. $4.95.

Marsh, A. The cone shells of the world. Brisbane, Jacaranda, 1964. $12.60.

Marshall. A. J., ed. The great extermination; a guide to Anglo-Australian cupidity, wickedness and waste. Melbourne, Heinemann, 1966. $4.75.
Well illustrated account of the rape of the land.

Marshall, T. Tropical fishes of the Great Barrier Reef. Sydney, Angus and Robertson, 1966. $7.00.

Morcombe, M. Wild Australia. Melbourne, Lansdowne, 1966. $4.50.

Pryor, L. D. Trees in Canberra. Canberra, Department of the Interior, 1962. $1.95.

Robert, D. Bellbird eleven; life in the woods. London, H. Hamilton, 1965. 25s.
Autobiographical account of a sojourn in a remote village in Victoria.

Roughley, T. C. Fish and fisheries of Australia. Revised ed. Sydney, Angus and Robertson, 1966. $7.50.

Serventy, V. The Australian nature trail. Melbourne, Georgian House, 1965. $4.20.

Serventy, V. A continent in danger, London. Deutsch, 1966. 45s.
(Survival special on Australian wildlife)

Slater, P. Wildlife of Western Australia, by Peter Slater and Eric Lindgren. Perth, Western Australian Newspapers, 1966. $4.20.

Worrell, E. Australian snakes, crocodiles, tortoises, turtles, lizards. Sydney, Angus and Robertson, 1966. $3.00.

Worrell, E. Australian wildlife; best known birds, mammals, reptiles, plants of Australia and New Guinea. Sydney, Angus and Robertson, 1966. $4.50.

Worrell, E. The Great Barrier reef. Sydney, Angus and Robertson, 1966. $4.50.

ETHNOLOGY

Standard Works in Print

Australia. *Department of Territories.* Australia's aborigines; prepared under the authority of the Minister for Territories, with the co-operation of the Ministers responsible for aboriginal welfare in the Australian States. Revised ed. Canberra, 1965. Gratis.

Australia. *Department of Territories.* Progress towards assimilation: aboriginal welfare in the Northern Territory. Revised ed. Canberra. 1963. Gratis.

Australian institute of aboriginal studies. Occasional papers in aboriginal studies. Canberra, 1963 to date. $1.25 ea.

Berndt, R. M. The world of the first Australians; an introduction to the traditional life of the Australian aborigines, by Ronald M. Berndt and Catherine H. Berndt. Sydney, Ure Smith, 1964. $9.50.

Elkin, A. P. The Australian aborigines; how to understand them. 4th ed. Sydney, Angus and Robertson, 1966. $4.50.

Greenway, J. Bibliography of the Australian aborigines and the native people of Torres Strait, to 1959. Sydney, Angus and Robertson, 1963. $10.50.

Malinowski, B. The family among the Australian aborigines; a sociological study. New York, Schocken, 1963. $5.00 (U.S.).
First published in London, in 1913.

Mankind. Sydney, Anthropological Society of New South Wales, 1931 to date. Irreg. 75c ea.

Mountford, C. P., *ed.* Records of the American-Australian scientific expedition to Arnhem Land. Melbourne, Melbourne University Press, 1956 to date. $12.60. (v. 1 o.p.)

Oceania; a journal devoted to the study of native peoples of Australia, New Guinea and the islands of the Pacific Ocean. Sydney, University of Sydney, 1930 to date. Quarterly. $6.00 p.a.

Parker, K. L. Australian legendary tales: collected by K. Langloh Parker; selected and edited by H. Drake-Brockman. Illustrated by Elizabeth Durack. 5th ed. Sydney, Angus and Robertson, 1963. $2.75.
First published in 1953.

See also the anthropological reports of the Governments of Papua and New Guinea, and the publications of the South Pacific Commission.

Recent Publications of Interest

ANTHROPOLOGICAL forum. Perth, University of Western Australia Press, 1965 to date. $1.50 ea.

ARCHAEOLOGY and physical anthropology in Oceania; a journal devoted to the study of archaeology and physical anthropology of Australia, New Guinea, South East Asia, and the islands of the Pacific Ocean. Sydney, University of Sydney, 1966 to date. Two issues a year. $2.00 ea.

BERNDT, R. M., *ed.* Aboriginal man in Australia; essays in honour of Emeritus Professor A. P. Elkin. Edited by R. M. and C. H. Berndt. Sydney, Angus and Robertson, 1965. $6.30.

GALE, Fay. A study of assimilation; part aborigines in South Australia. Adelaide, Libraries Board of South Australia, 1964. $8.00.

HIATT, L. R. Kinship and conflict; a study of an aboriginal community in northern Arnhem Land. Canberra, Australian National University, 1965. $4.50.

The group observed was recently settled on a government reserve.

HOGBIN, H. I. P., *ed.* Readings in Australian and Pacific anthropology, edited by H. I. P. Hogbin and L. R. Hiatt. Melbourne, Melbourne University Press, 1966. $2.80.

HOLMER, N. M. On the history and structure of the Australian languages. Upsala, Lundequistska 1963. Cr.18. (Australian essays and studies, 3.)

IDRIESS, I. L. Our stone age mystery. Sydney, Angus and Robertson, 1964. $4.20.

This account of the life of the adult aborigines deals particularly with their hunting and food gathering practices.

LAWRENCE, P. Gods, ghosts and men in Melanesia; some religions of Australian New Guinea and the New Hebrides, by P. Lawrence and M. J. Meggitt. Melbourne, Oxford University Press, 1965, $7.50.

LAWRENCE, P. Road belong cargo; a study of the cargo movement in the Southern Madang district, New Guinea. Melbourne, Melbourne University Press, 1964. $5.80.

MARWICK, M. G. Sorcery in its social setting; a study of the Northern Rhodesian Cewa. Manchester, Manchester University Press, 1965. 45s.

MEAD, Margaret. New lives for old; cultural transformation—Manus, 1928–1953. With a new preface 1965. New York, Morrow, 1966. $7.50.

MEGGITT, M. J. The lineage system of the Mae-Enga of New Guinea. London, Oliver & Boyd, 1965. 70s.

MOUNTFORD, C. P. Australian aboriginal portraits. Melbourne, Melbourne University Press, 1967. $6.00.

MOUNTFORD, C. P. Ayers Rock; its people, their beliefs and their art. Sydney, Angus and Robertson, 1966. $6.50.

The Pitjandjara tribe are the aboriginal inhabitants of this part of Central Australia.

ROBINSON, G. A. Friendly mission; the Tasmanian journals and papers of George Augustus Robinson 1829–1834, edited by N. J. B. Plomley. Hobart, Tasmanian Historical Research Association, 1966. $12.60.

ROBINSON, R. E. The man who sold his dreaming. Sydney, Currawong, 1965. $2.50.

The author has recorded, verbatim, tales told him by Aborigines.

SHEILS, Helen, *ed.* Australian aboriginal studies. Melbourne, Oxford University Press for the Australian Institute of Aboriginal Studies, 1963. $7.50 paper.

SIMPSON, C. Adam in ochre; inside aboriginal Australia. 5th ed. Sydney, Angus and Robertson, 1962. $3.50.

WARNER, W. L. A black civilization; a study of an Australian tribe. New York, Harper, 1964. $3.45 (U.S.)

First published in 1937.

HOME ECONOMICS

Recent Publications of Interest

CILENTO, Phyllis D., *Lady.* Enjoy your family; a guide for parenthood. Brisbane, Jacaranda, 1964. 52s. 6d.

CLARKE, M. I. Care of the Australian horse and pony. Adelaide, Rigby, 1966. $4.75.

CROOKE, Patricia. Is emu on the menu? historical homesteads and recipes of Gippsland. Rosedale, Victoria, Author, 1965. $1.60.

GUERTNER, Beryl. Gregory's 200 home plan ideas. Sydney, Gregory's Guides and Maps Pty Ltd., 1966. $2.55.

HOME ECONOMICS TEACHERS GROUP. Cookery the Australian way, by a committee of Australian home economists and teachers of economics, Melbourne. Melbourne, Macmillan, 1966. $3.00.

KALMAR, S. You and your home. Sydney, Shakespeare Head, 1964. $3.00.

KERR, G. The Graham Kerr cookbook. Sydney, Reed, 1966. $7.50.

KONTA, Ann. Hungarian cookery. Decorations by Carolyn Long. Sydney, Ure Smith, 1966. $1.00.

LINDSAY, P. The Australian gardener's guide to pests and diseases. Sydney, Horwitz, 1965. $1.00.

MALONEY, Betty. Designing Australian bush gardens, by Betty Maloney and Jean Walker. Sydney, Horwitz, 1966. $1.00.

MENDELSOHN, O. A. The dictionary of drink and drinking, London, Macmillan, 1965. 45s.

PAUSEY, Sheridan. The Australian dog breeder's manual. Sydney, Horwitz, 1965. 95c.

PHELAN, Nancy. Yoga over forty, by Nancy Phelan and Michael Volin. New York, Harper, 1965. $3.95.

READER'S DIGEST ASSOCIATION. Reader's Digest complete book of the garden. Prepared by the Australian and New Zealand editors of the Reader's Digest. Sydney, 1966. $7.50.

ART, ARCHITECTURE, MUSIC, AND THEATRE

Standard Works in Print

ARCHITECTURE in Australia. Sydney, Royal Australian Institute of Architects. 1917 to date. Bi-monthly. $1.00 ea.

ART and Australia. Sydney, Ure Smith, 1963 to date. Quarterly. $10.50 p.a.

ARTS in Australia. Melbourne, Longmans, 1961 to date. Various prices.

This series covers aspects of art such as architecture, pottery, design, aboriginal art, sculpture, theatre, ballet, and painting.

AUSTRALIA; aboriginal paintings Arnhem Land; introduction by Sir Herbert Read. Milan, Italy, New York Graphic Society by arrangement with UNESCO, 1954. $15.00 (U.S.). (Unesco world art series.)

AUSTRALIAN art monographs. Melbourne, Georgian House in association with the Fine Arts Department, University of Melbourne, 1962 to date. Various prices.

Sali Herman, Clifton Pugh and John Olsen have been featured in this series which is planned to cover in an extensive manner contemporary Australian artists.

BOYD, Robin. The Australian ugliness. Melbourne, Cheshire, 1963. $3.50.

A commentary, by a leading Australian architect, on the attitude of Australians towards standards of design and taste in their urban surroundings.

FILM journal. Melbourne, New Melbourne Film Group and Melbourne University Film Society, 1956 to date. 45c ea.

HALL, H. B. Ballet in Australia from Pavlova to Rambert. Melbourne, Georgian House, 1948. $12.60.

McCARTHY, F. D. Australian aboriginal rock art. Foreword by A. P. Elkin. Sydney, Australian Museum, 1958. 65c.

ORCHARD, W. A. Music in Australia; more than 150 years of development. Melbourne, Georgian House, 1952. $3.00.

RIENITS, R. Early artists of Australia, by R. and T. Rienits. Sydney, Angus and Robertson, 1963. $10.50.

SMITH, B. W. Australian paintings, 1788–1960. Melbourne, Oxford University Press, 1962. $10.50.

SMITH, B. W. European vision and the south Pacific, 1786–1850; a study of the history of art and ideas. Oxford, Clarendon Press, 1960. 84s.

See also the *Bulletins* of the Art Galleries in the several States of the Commonwealth.

Recent Publications of Interest

THE AUSTRALASIAN antique collector. Sydney, Newspaper Typesetters, 1966 to date. Quarterly. 75c. ea.

BIRRELL, J. Walter Burley Griffin. Brisbane, University of Queensland Press, 1963. $10.50.

Canberra is built to the design of Griffin, a Chicago architect who submitted the prize winning entry in the Federal Capital plan competition in 1911.

BLACK, R. Old and new Australian aboriginal art. Sydney, Angus and Robertson, 1964. $5.00.

BOYD, Robin. The puzzle of architecture. Melbourne, Melbourne University Press, 1965. $6.50.

Casey, Maie, *Lady*. Early Melbourne architecture 1840 to 1888. Compiled and edited by M. Casey and others. 3rd ed. Melbourne, Oxford University Press, 1966. $7.00.

Ch'en Chih-Mai. Chinese calligraphers and their art. Melbourne, Melbourne University Press, 1966. $12.00.

The author was Chinese Ambassador to Australia from 1959 to 1966.

Dean, Beth. The many worlds of dance. Sydney, Murray, 1966. $3.75.

Duldig, K. Sculpture. Melbourne, Cheshire, 1966. $10.50.

Dutton, G. P. H. Russell Drysdale. London, Thames and Hudson, 1964. 105s.

Ellis, Catherine J. Aboriginal music making; a study of Central Australian music. Adelaide, Libraries Board of South Australia, 1964. $8.00.

Fairweather, I. The drunken Buddha. Brisbane, University of Queensland Press, 1965. $6.95.

This noted Australian artist has provided twelve illustrations to his translation of a classical Chinese tale.

Gleeson, J. T. William Dobell. London. Thames and Hudson, 1964. 105s.

Hele, I. H. T. The art of Ivor Hele. With preface by Sir Will Ashton. Adelaide, Rigby, 1966. $25.00.

Herman, M. E. The architecture of Victorian Sydney. 2nd ed. Sydney, Angus and Robertson, 1963. $8,40.

Heysen, *Sir* Hans. The art of Hans Heysen, with text and selection of pictures by David Dridan. Adelaide, Rigby, 1966. $15.00.

Hilder, J. J. The heritage of J. J. Hilder, by Brett Hilder. Sydney, Ure Smith, 1966. $10.50.

Hughes, R. Donald Friend by Robert Hughes. Sydney, Edwards & Shaw, 1965. $9.60.

Kupka, K. Dawn of art; painting and sculpture of Australian aborigines. Sydney, Angus and Robertson, 1965. $7.00.

The first edition in French of this work was published in Lausanne in 1962.

Lindsay, *Sir* Daryl. The Felton bequest; an historical record, 1904–1959. Melbourne, Oxford University Press, 1963. $4.20.

Lindsay, Norman. Norman Lindsay's ship models. Sydney, Angus and Robertson, 1966. $12.00.

Mathew, R. Charles Blackman. Melbourne, Georgian House, 1965. $4.20.

Miller, G. Godfrey Miller. Foreward by Peter Bellew, editor John Henshaw. Sydney, Darlinghurst Galleries, 1965. $20.00.

Miscellanea musicologica; Adelaide studies in musicology. Adelaide, Libraries Board of South Australia, 1966 to date. $2.50 ea.

Mountford, C. P. Aboriginal paintings from Australia. New York. Mentor-Unesco Art Book, 1964. 95c (U.S.).

Mountford, C. P. The dream time Australian aboriginal myths in paintings by Ainslie Roberts, with text by Charles P. Mountford. Adelaide, Rigby, 1965. $2.50.

Phillip, F., *ed.* In honour of Daryl Lindsay, essays and studies. Edited by Franz Phillip and June Stewart. Melbourne, Oxford University Press, 1964. $12.60.

Priceless heritage; historic buildings in Tasmania. Hobart, Platypus Publications, 1964. $7.00.

Robertson, E. G. Early houses of northern Tasmania, by E. G. Robertson and Edith N. Craig. Abridged ed. Melbourne, Georgian House, 1966. $25.00.

Robins, K. An introduction to music. Brisbane, Jacaranda, 1966.

SCJ; the Sydney cinema journal. Sydney, Ken Quinnell and Michael Thornbull, 1966 to date. Quarterly. 50c. ea.

Saunders, D., *ed.* Historic buildings of Victoria. Brisbane, Jacaranda, 1966.

Seidler, H. Harry Seidler, 1955–63; houses, buildings and projects. Sydney, Horwitz, 1963. $11.50.

Sydney. *University. Planning Research Centre.* Urban re-development in inner city areas; ways and means of achievement. Sydney, James Bennett, 1966. $3.00.

Proceedings at discussions series on Urban Redevelopment in Inner City Areas, University of Sydney, August-September, 1965.

SPORT

Standard Works in Print

Bradman, *Sir* Donald. The art of cricket. London, Hodder and Stoughton, 1958. 30s.

Bull, J. The spiked shoe, Melbourne, National Press, 1959. $1.85.

A history of professional running in Australia with special reference to Victorian performances.

MACLAREN, T. M. The Australian golfer's handbook (incorporating *Who's who in Australian golf*). 2nd ed. Sydney, Gordon & Gotch, 1960. $1.50.

MILLER's sporting annual and athletic record. Melbourne, Herald & Weekly Times, 1918 to date. Annual. $1.00 ea.

SKI Australia; snow and water. Sydney, K. G. Murray Publishing Company, 1961 to date. Ten issues a year. 25c ea.
Incorporates *Schuss*.

Recent Publications of Interest

BENAUD, R. The new champions; Australia in the West Indies 1965. London, Hodder and Stoughton, 1965. 21s.

CARLILE, F. Forbes. Carlile on swimming. London, Pelham Books, 1963. 25s.

CARTER, Isobel. Phar Lap; the story of the big horse. Melbourne, Lansdowne, 1964. $3.25.
The story of Australia's greatest racehorse. who died from accidental poisoning in 1932.

CERUTTY, P. W. Sport is my life. London, Stanley Paul, 1966. 26s. 6d.
Reminiscences of the controversial athletic coach.

CLARKE, R. The unforgiving minute; Ron Clarke as told to Alan Trengove. London. Pelham Books. 1966. 30s.
The story of the record-breaking distance runner.

CROPP, B. Shark hunters. Adelaide, Rigby, 1964. $3.75.

CUTHBERT, Betty. Golden girl. London. Pelham Books, 1966. 25s.
An account of the life of one of Australia's best known athletes, as told to Jim Webster.

DAVIDSON, A. Alan Davidson's cricket book. Edited by Phil Tresidder. Sydney, Shakespeare Head, 1965. $2.50.

DEXTER, E. Rothman's book of test matches; England v Australia, 1946–1963. London, Arthur, Barker, 1964. 18s.

FARRELLY, B. This surfing life. Midget Farrelly as told to Craig McGregor. Adelaide, Rigby, 1965. $3.95.

FRASER, Dawn. Gold medal girl; the confessions of an Olympic swimmer. Melbourne, Lansdowne, 1965. $3.25.

GROUT, W. My country's keeper. London, Pelham Books, 1965. 26s. 6d.
The author is the noted Australian wicket-keeper.

HARDY, W. The saltwater angler. Sydney, Murray, 1966. $4.25.

JACKSON, G. W. The Australian beach and boating book. Melbourne, Cassell. 1963. $1.25.

LARWOOD, H. The Larwood story. Harold Larwood with Kevin Perkins. London, W. H. Allen, 1965. 25s.
This autobiography includes a detailed account of the bodyline controversy of the 1932–33 cricket season.

MCCRISTAL, V. Freshwater fighting fish. Sydney, Murray, 1964. $3.95.

MCFADDEN, W. J. Thoroughbred sires of Australia and New Zealand. Sydney, Angus and Robertson, 1962. $21.00.

MILLER, K. Keith Miller on cricket. In association with Jack Pollard. London, Pelham Books, 1965. $2.65.

NEWTON, A. The fundamentals of lawn bowls. Revised [i.e. 2nd] ed. Sydney, Angus and Robertson, 1964. $2.50.

PEARSON, J. The last hero; the gallant story of Donald Campbell and the land speed record 1964. New York, David McKay, 1966. $4.50.
The attempts and final record were made at Lake Eyre, South Australia.

POLLARD, J., *comp.* Gregory's Australian fishing guide. 4th ed. Sydney, Gregory's Guides and Maps, 1965. $1.75.

POLLARD, J., *comp.* Gregory's Australian guide to camping and caravans. Sydney, Gregory's Guides and Maps, 1964. $1.75.

POLLARD, J., *comp.* Gregory's Australian guide to golf. 2nd ed. Sydney, Gregory's Guides and Maps, 1964. $1.75.

POLLARD, J., *comp.* Gregory's Australian guide to hunting and shooting. Sydney, Gregory's Guides and Maps, 1963. $1.75.
Distributed by Grenville Publishing Company, Sydney.

POLLARD, J., *ed.* High mark; the complete book of Australian football. Sydney, Murray, 1964. $3.55.

POLLARD, J., *ed.* One for the road; stories of racetracks, trials, pioneer, veteran, vintage, and outback motoring in Australia and New Zealand. Sydney, Angus and Robertson, 1966. $5.50.

POLLARD, J., *ed.* The scream of the reel; deep sea, beach, estuary, and inland angling in Australian and New Zealand waters. Melbourne, Lansdowne, 1966. $5.25.

RAPER, J. The Johnny Raper rugby league book. Sydney, Murray, 1965. $3.55.

SMITH, Margaret. The Margaret Smith story as told to Don Lawrence. London, Stanley Paul, 1965. 21s.
An account of the Australian tennis player who became a Wimbledon champion.

STEWART, D. A. The seven rivers. Sydney, Angus and Robertson, 1966. $3.50.
Reminiscences of trout-fishing in Australia and New Zealand, by the well known poet.

SWANWICK, R. Les Darcy; Australia's golden boy of boxing. Sydney, Ure Smith, 1965. $3.25.

WILLIAMSON, Cathy. Falling free. London, R. Hale, 1965. 21s.
Autobiographical account of parachuting as a leisure time activity.

LITERATURE AND LANGUAGE

*Criticism, Bibliography and Anthologies

Standard Works in Print

AUSTRALIAN book review. Adelaide, 1961 to date. Monthly. $4.20 p.a., 35c ea.

AUSTRALIAN BROADCASTING COMMISSION. *Standing Committee on Spoken English.* A guide to the pronunciation of Australian place names. Sydney, Angus and Robertson, 1957. 75c.

AUSTRALIAN journal of French studies. Melbourne, Cheshire for the Department of Modern Languages, Monash University, 1964 to date. Three issues a year. $5.00 p.a.

AUSTRALIAN letters. Melbourne, Sun Books, 1957 to date. Quarterly. $5.00 p.a.

AUSTRALIAN literary studies. Hobart, Department of English, University of Tasmania, 1963 to date. Semi-annual. $2.50 p.a.

AUSTRALIAN poetry. Sydney, Angus and Robertson, 1941 to date. Annual. $1.50.

AUSTRALIAN poets. Sydney, Angus and Robertson, 1963 to date. 75c ea.
This series provides a selection of the work of leading Australian poets, including such writers as Shaw Neilson, Mary Gilmore, James McAuley, Judith Wright, Bernard O'Dowd, Victor Daley, Rosemary Dobson, R. D. FitzGerald, Charles Harpur, A. D. Hope, H. C. Kendall, Douglas Stewart, and C. J. Brennan.

AUSTRALIAN writers and their work. Melbourne, Oxford University Press, 1962 to date. 85c ea.
This series comments on such writers as Patrick White, Henry Lawson, Henry Handel Richardson, Norman Lindsay, Joseph Furphy, Miles Franklin, Martin Boyd, Charles Harpur, Kenneth Slessor, Douglas Stewart, and C. J. Brennan.

COAST to coast: Australian stories. Sydney, Angus and Robertson, 1943 to date. Annual. Various prices.

COMMONWEALTH Literary Fund lectures. Canberra, Australian National University, 1954 to date. 50c ea.

CRITICAL review. Melbourne, Department of English, University of Melbourne, 1958 to date. Annual. 80c ea.

DUTTON, G. P. H. The literature of Australia. Melbourne, Penguin Books, 1964. $1.55. (Pelican books Au 8.)

GREEN, H. M. Australian literature, 1900–1950. Melbourne, Melbourne University Press, 1963. 35c.
First published in 1951.

GREEN, H. M. A history of Australian literature. Sydney, Angus and Robertson, 1962. $16.80. 2v. v. 1, 1788–1922; v. 2, 1923–1950.

HADGRAFT, C. H. Australian literature; a critical account to 1955. London, Heinemann 1965, 35s.

HADGRAFT, C. H., *ed* A century of Australian short stories, edited by Cecil Hadgraft and Richard Wilson. Melbourne, Heinemann, 1963. $3.25.

HOPE, A. D. Australian literature, 1950–1962. Melbourne, Melbourne University Press, 1963. 35c.

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* Excludes the works of individual authors, reference to which will be found in Miller, *Australian literature*, and Green, *A history of Australian literature*.

JAMES, B., *comp.* Australian short stories, second series. London, Oxford University Press, 1963. 8s. 6d. (World's classics, 598.)

MEANJIN quarterly; a review of arts and letters in Australia. Melbourne, University of Melbourne, 1940 to date. $5.00 p.a.

MILLER, E. Morris. Australian literature; a bibliography to 1938, by E. Morris Miller; extended to 1950. Edited with historical outline and descriptive commentaries by F. T. Macartney. Sydney, Angus and Robertson, 1956. $3.00.

MITCHELL, A. G. The pronunciation of English in Australia. Revised ed., by A. G. Mitchell and Arthur Delbridge. Sydney, Angus and Robertson, 1965. $1.75.

OVERLAND. Melbourne, S. Murray-Smith, 1954 to date. Quarterly. 40c ea.

POETRY Australia. Sydney, South Head Press, 1964 to date. Six issues a year. 50c ea.

POETRY magazine. Sydney, Poetry Society of Australia, 1954 to date. Six issues a year. 50c ea.

QUADRANT. Sydney, Australian Association for Cultural Freedom, 1956 to date. Quarterly. 50c ea.

SOUTHERLY. Sydney, Australian English Association, 1939 to date. Quarterly. 75c ea.

SOUTHERN review. English Department. University of Adelaide, 1963 to date. Annual. 80c ea.

STEWART, D. A., *ed.* Australian bush ballads, edited by Douglas Stewart and Nancy Keesing. Sydney, Angus and Robertson, 1962. $4.50.

STEWART, D. A. Old bush songs and rhymes of colonial times. Enlarged and revised from the collection of A. B. Patterson, by Douglas Stewart and Nancy Keesing. Sydney, Angus and Robertson, 1957. $3.75.

THIELE, C. M., *ed.* Australian poets speak. Edited by Colin Thiele and Ian Mudie. Adelaide, Rigby, 1961. $1.95.

WARD, R. B. The Penguin book of Australian ballads. Melbourne, Penguin Books, 1964. 95c.

WESTERLY. Nedlands, W. A., Arts Union, University of W. A , 1956 to date. Quarterly. $2.40 p.a.

WRIGHT, Judith, *ed.* A book of Australian verse. Melbourne, Oxford University Press, 1956. $1.85.

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BAKER, S. J. The Australian language; an examination of the English language and English speech as used in Australia, from convict days to the present, with special reference to the growth of the indigenous idiom and its use by Australian writers. Sydney, Currawong, 1966. $9.50.

BRISSENDEN, R. F. Patrick White. London. British Council, 1966. (Writers and their works, 190.)

BRISSENDEN, R. F. Southern harvest; an anthology of Australian short stories. Melbourne, Macmillan, 1964. $1.75.

BULLETIN. The Bulletin book; a selection from the 1960s. Melbourne, Cheshire, 1966. $5.75.

DICK, Margaret. The novels of Kylie Tennant. Adelaide, Rigby, 1966. $2.75.

EWERS, J. K., *ed.* Modern Australian short stories. Melbourne, Georgian House, 1966. $3.00.

GILMORE, *Dame* Mary. Mary Gilmore; a tribute. Dymphna Cusack, T. Inglis Moore, Barrie Ovenden, with a bibliography by Walter Stone. Sydney, Australasian Book Society, 1965. $4.50.

HAYLEN, L., *ed.* The tracks we travel; third collection. Sydney, Australasian Book Society, 1965. $2.50.
Australian short stories.

HOPE, A. D. The cave and the spring; essays on poetry. Adelaide, Rigby, 1965. $3.50.

IGGULDEN, J. M., *ed.* Summer's tales 3. Melbourne, Macmillan, 1966. $3.00.

JOHNSTON, G. K. W., *ed.* Australian literary criticism. Melbourne, Oxford University Press, 1962. $2.10, paperbound.

MANIFOLD, J. S. The Penguin Australian song book. Melbourne, Penguin Books, 1964. 95c.

MENDELSOHN, O. A waltz with Matilda; on the trail of a song. Melbourne, Lansdowne, 1966. $4.50.
An investigation into the authorship and history of Australia's most popular song *Waltzing Matilda.*

MENZIES. *Sir* Robert. Speech and speakers, Melbourne, 1963. (George Adlington Syme oration, 1963.)

MITCHELL, A. G. The speech of Australian adolescents; a survey, by A. G. Mitchell and Arthur Delbridge. Sydney, Angus and Robertson, 1965. $3.00.

O'Donovan, A., *ed.* Under twenty-five; an anthology, edited, designed and produced by A. O'Donovan, J. Sanderson and S. Porteous. Brisbane, Jacaranda, 1966. $3.95.

Overland. An Overland muster; selections from *Overland*, 1954–1964, edited by Stephen Murray-Smith. Brisbane, Jacaranda, 1965. $3.95.

Ramson, W. S. Australian English; an historical study of the vocabulary 1788–1898. Canberra, Australian National University Press, 1966. $4.50.

Reed, A. H. Aboriginal words of Australia. Sydney, Reed, 1965. $1.60.

Revill, L. C. The journalist's craft, by L. C. Revill and C. A. Roderick. Sydney, Angus and Robertson, 1965. $5.50.

Roderick, C. Henry Lawson; poet and short story writer. Sydney, Angus and Robertson, 1966. $2.50.

Samuel, R. H. Selected writings, edited in honour of his 65th birthday by D. R. Coverlid, J. Smit, H. Wiemann, C. Kooznetzoff. Melbourne, University of Melbourne, Department of Germanic Studies, 1966. $5.00.

Semmler, C. The Banjo of the bush; the work, life and times of A. B. Paterson. Melbourne, Lansdowne, 1966. $5.25.

Semmler, C., *ed.* Literary Australia, edited by Clement Semmler and Derek Whitelock. Melbourne Cheshire, 1966. $3.00.
Proceedings of a seminar held at University of New Engalnd, 1965.

Sinnett, F. The fiction fields of Australia, edited by Cecil Hadgraft. Brisbane, University of Queensland Press, 1966. $2.50.
First published in 1856.

Tasmanian fellowship of australian writers. Ten short stories. Hobart, Fullers Bookshop, 1965 to date.' $1.50 ea.

Tennant, Kylie, *ed.* Summer's tales 2. Melbourne, Macmillan, 1965. $2.50.

Turner, G. W. The English language in Australia and New Zealand. London. Longmans, 1966. 27s 6d.

Wannan, W. F., *ed.* The heather in the south; a Scottish-Australian entertainment, Melbourne. Lansdowne, 1966. $4.95.

Webster, O. Read well and remember; a guide to efficient reading. London, Hutchinson, 1966. 20s.

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Recent Publications of Interest

Brennen, C. J. Selected poems. Selection and introduction by A. R. Chisholm. Sydney, Angus and Robertson, 1966. $1.25. (Australian poets.)

Buckley, V. T. Arcady and other places; poems. Melbourne, Melbourne University Press, 1966. $2.00.

Campbell, D. W. I. Poems. Sydney, Edwards & Shaw, 1962. $1.50.

Dobson, Rosemary. Cock crow. Sydney, Angus and Robertson, 1965. $1.75.

Fitzgerald, R. D. Forty years' poems. Sydney, Angus and Robertson, 1965. $3.50.

Hope, A. D. Collected poems 1930–1965. Sydney, Angus and Robertson, 1966. $3.75.

Kendall, H. C. The poetical works of Henry Kendall, edited by T. T. Reed Adelaide, Libraries Board of South Australia, 1966. $7.50.

Higham, C. Noonday country; poems 1954–1965. Sydney, Angus and Robertson, 1966. $1.85.

Lawson, H. H. Poetical works. With preface and introduction by David McKee Wright. Sydney, Angus and Robertson, 1966. $2.50.

Martin, D. The gift; poems 1959–1965. Brisbane, Jacaranda, 1966. $2.95.

Matthews, H. Patriot's progress. Adelaide, Rigby, 1965. $1.10.

Murray, L. A. The ilex tree, by L. A. Murray and Geoffrey Lehman. Canberra, Australian National University, 1965. $2.10.

Neilson, J. S. The poems of Shaw Neilson, edited with introduction by A. R. Chisholm. Sydney, Angus and Robertson, 1965. $1.85.

Palmer, Aileen. World without strangers? Melbourne, Overland, 1964. $1.50.

Paterson, A. B. The collected verse of A. B. Paterson containing *The man from Snowy River, Rio Grande, Saltbush Bill, J. P.* Sydney, Angus and Robertson, 1966. $2.50.

Powell, C. A different kind of breathing; poems. Sydney, South Head Press, 1966. $1.50.

Slessor, K. Poems. Sydney, Angus and Robertson, 1966. $1.25. (Sirius books.)
First published as *The hundred poems in* 1944.

Smith, W. Hart-. The talking clothes. Sydney, Angus and Robertson, 1966. $1.95.

Thompson, J. J. M. I hate and I love; poems. Melbourne, Cheshire, 1964. $2.50.

Walker, Kath. The dawn is at hand. Brisbane, Jacaranda, 1966. $1.50.

Webb, F. The ghost of the cock; poems. Sydney, Angus and Robertson, 1964. $1.75.

Williams, V. Hammers and seagulls. Sydney, Australasian Book Society, 1966. $1.95.

Wright, Judith. Five senses; selected poems. Sydney, Angus and Robertson, 1963. $2.10 (Sirius books.)

Wright, Judith. The nature of love. Melbourne, Sun Books, 1966. 90c.

Wright, Judith. The other half. Sydney, Angus and Robertson, 1966. $1.95.

DRAMA AND ESSAYS

Recent Publications of Interest

Chisholm, A. R. The familar presence and other reminiscences. Melbourne, Melbourne University Press, 1966. $3.75.

Cox, H. Are pigs people. London, Hodder, 1966. $2.85.

Fullerton, Mary. Bark house days. Melbourne, Melbourne University Press, 1964. 75c.
First published in 1931.

Hanger, Eunice, *ed.* Australian one-act plays. Adelaide, Rigby, 1962. 55c.

Hesling, B. Stir up this stew. Sydney, Ure Smith, 1966. $2.50.

Ireland, D. Image in the clay. Brisbane, University of Queensland Press, 1964. 95c. (Contemporary Australian plays, no. 2.)

Kelly, M. For service to classical studies; essays in honour of Francis Letters, edited by Maurice Kelly. Melbourne, Cheshire, 1966. $4.50.

Lindsay, Norman. The scribblings of an idle mind. Melbourne, Lansdowne, 1966. $7.50.

McGeorge, J. Reflections of a psychiatrist. Sydney, Hodder and Stoughton, 1966. $3.00.

Murdoch, *Sir* Walter. Selected essays. Sydney, Angus and Robertson, 1962. $1.35.

Spate, O. H. K. Let me enjoy; essays, partly geographical. Canberra, Australian National University, 1965. $5.00.
The author is Professor of Geography in the Australian National University.

Three Australian plays. Introduction by H. G. Kippax. Melbourne, Penguin Books, 1963. 75c.
Contents: The one day of the year, by A. Seymour; Ned Kelly, by D. Stewart; The tower, by Hal Porter.

White, P. Four plays. London, Eyre & Spottiswoode, 1965. 35s.
Contents: The ham funeral; The season at Sarsparilla; A cheery soul; Night on bald mountain.

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Recent Publications of Interest

Aitchison, R. Contillo; a novel. Melbourne, Cheshire, 1966. $3.95.

Aldridge, J. The statesman's game. New York, Doubleday, 1966. $4.95.

Astley, Thea. The slow natives. Sydney, Angus and Robertson, 1965. $2.50.

Baynton, Barbara, Bush studies; with a memoir by H. B. Gullett, foreword by A. A. Phillips. Sydney, Angus and Robertson, 1965. $2.50.
These short stories were first published in 1902.

Beaver, B. You can't come back. Adelaide, Rigby. 1966. $2.25.

Boldrewood, R. Robbery under arms. Sydney, Dymocks, 1963. $1.55.
First published in 1888.

Boyd, Martin. The Montforts. Adelaide, Rigby, 1963. $1.75.
First published in 1928.

Charlwood, D. E. C. An afternoon of time. Sydney, Angus and Robertson, 1966. $2.50.

Clarke, M. A. H. For the term of his natural life. With an introduction by George Ivan Smith. London, Collins, 1961. 8s. 6d.
First published in 1874.

CLEARY, J. S. The high commissioner. Sydney, Collins, 1966. $2.85.

COLLINS, Betty. The copper crucible. Brisbane, Jacaranda, 1966. $3.50.

COWAN, P. Seed. Sydney, Angus and Robertson, 1966. $3.25.

CRICK, D. H. Period of adjustment. Sydney, Australasian Book Society, 1966. $2.75.

DARK, Eleanor. The timeless land. Sydney, Collins, 1963.
First published in 1941. The author continued this story of early Sydney in her *Storm of time* and *No barrier*. $2.50 ea.

DAVISON, F. D. Man-shy; a story of men and cattle. Sydney, Angus and Robertson, 1962. $1.85.
First published in 1931.

ELDERSHAW, M. Barnard. A house is built. Sydney, Australasian Publishing Company, 1945. $1.85.
First published in 1929.

ELLIOTT, S. L. Some doves and pythons. New York, Harper, 1966. $4.95.

FURPHY, J. Such is life; being certain extracts from the diary of Tom Collins. Sydney, Angus and Robertson, 1962. $2.50. cloth, $1.60. paper. (Sirius books.)
First published in 1903.

GLASKIN, G. M. The man who didn't count. London, Barrie and Rockliff, 1965. 22s. 6d.

HACKSTON, J. (Hal Gye) Father clears out, by J. Hackston. Illustrated by Hal Gye. Sydney, Angus and Robertson, 1966. $2.75.

HARROWER, Elizabeth. The watch tower. London, Macmillan, 1966. 25s.

HERBERT, Xavier. Capricornia; a novel. Sydney, Angus and Robertson, 1963. $2.50. cloth, $1.60 paper. (Sirius books.)
First published in 1937.

JAMES, B. The big burn; short stories. Sydney, Angus and Robertson, 1965. $2.75.

JOHNSON, G. H. My brother Jack. Sydney, Collins, 1964. $2.85.

KENEALLY, T. The fear. Melbourne, Cassell, 1965. $2.75.

KOCH, C. Across the sea wall. London, Heinemann, 1965. 21s.

LAMBERT, E. F. The tender conspiracy. London, Muller, 1965. 13s. 6d.

LAWSON, H. H. Henry Lawson's best stories. Chosen by Cecil Mann. Sydney, Angus and Robertson, 1966. $3.75.

LAWSON, H. H. The stories of Henry Lawson. Sydney, Angus and Robertson, 1964. 1st to 3rd series. 1st and 2nd $3.50; 3rd series $4.50.

LINDSAY, Norman. The age of consent. Sydney, Ure Smith, 1961. $2.25.
First published in 1938.

MANN, P. G. The keys of heaven. London, Heinemann, 1966. 30s.

MACINNES, C. All day Saturday. London, Macgibbon & Kee, 1966. 25s.

MARKS, H. The heart is where the hurt is. London, Gollancz, 1966. 25s.

MARTIN, D. The littlest neutral. New York, Crown Publishers, 1966. $4.95 (U.S.)

MATHERS, P. Trap; a novel. Melbourne, Cassell Australia, 1966. $3.25.

MORLEY, R. Cool change moving north. London, Heinemann, 1966. 25s.

NILAND, D. Pairs and loners. London, M. Joseph, 1966. 21s.

O'GRADY, D. A long way from home; stories. Melbourne, Cheshire, 1966. $3.00.

PALMER, Vance. The world of men (short stories). Melbourne, Cheshire, 1962. $2.10.
First published in 1915.

PATRICK, J. Inapatua. Melbourne, Cassell Australia, 1966. $2.80.

PENTON, B. The landtakers. Sydney, Angus and Robertson, 1963. $2.75.
First published in 1934.

PRICHARD, Katharine. Coonardoo; the well in the shadow. Sydney, Angus and Robertson, 1964. (Sirius books.) $1.50.
First published in 1929.

REID, Wynwode. Doomsday morning. Adelaide, Rigby, 1966. $2.75.

RICHARDSON, H. H. The fortunes of Richard Mahony. London, Heinemann, 1961, 30s.
First published in 1917.

RUHEN, O. Likely ghosts; tales of the sea and New Zealand. London, Hodder and Stoughton, 1964. 21s.

SCHLUNKE, E. O. Stories of the Riverina. Selected with an introduction by Clement Semmler. Sydney, Angus and Robertson, 1966. $2.75.

SIDNEY, Neilma. Beyond the bay. Melbourne, Cheshire, 1966. $3.75.

STEAD, Christina. The man who loved children. London, Secker and Warburg, 1966. 46s.
First published in 1940.

STONE, L. Jonah. Sydney, Angus and Robertson, 1965. $2.75.
First published in 1911.

STOW, R. The merry-go-round in the sea. London, Macdonald, 1965. 25s.

TAYLOR, G. Court of honour; a novel. London, Davies, 1966. 30s.

TENNANT, Kylie. The battlers. Sydney, Angus and Robertson, 1965. $2.95.
First published in 1941.

THIELE, C. M. In charcoal and conté. Adelaide, Rigby, 1966. $2.10.

WATEN, J. Season of youth; a novel. Melbourne, Cheshire, 1966. $3.50.

WATKINS, W. The perilous hours. London, R. Hale, 1966. 15s.

WEST, Morris. The ambassador. London, Heinemann, 1965. 30s.

WHITE, P. The solid mandala; a novel. New York, Viking Press, 1966. $5.00 (U.S.).

CHILDREN'S BOOKS

Standard Works in Print

AUSTRALIAN book review; children's books and educational supplement. Kensington Park, S.A., Australian Book Review, 1962 to date. Annual. 30c ea.

BOYD, R. The walls around us; the story of Australian architecture told and illustrated for young readers. Melbourne, Cheshire, 1962. $1.95.

BRINSMEAD, Hesba. Pastures of the blue crane. London, Oxford University Press, 1964. 22s 6d.

CHAUNCY, Nancen. Tangara 'let us set off again'. London, Oxford University Press, 1960. 10s 6d.

CLARK, Mavis. The min-min. Melbourne, Lansdowne, 1966. $3.25.

CRAWFORD, R. M. A picture history of Australia. Illustrated by Clarke Hutton. London, Oxford University Press, 1962. 12s 6d.

DAVISON, F. D. Children of the dark people. Sydney, Angus and Robertson, 1960. $1.35.
First published in 1936.

DENNIS, C. J. A book for kids. Sydney, Angus and Robertson, 1961. $1.50.

EVERS, L. H. The Racketty Street gang. London, Hodder and Stoughton, 1961. 18s 9d.

GIBBS, May. The complete adventures of Snugglepot and Cuddlepie. Sydney, Angus and Robertson, 1963. $2.75.

GUNN, Jeannie. We of the Never-Never. Sydney, Angus and Robertson, 1954. $4.50.
First published in 1908.

HAWKINS, Sheila. Australian animals and birds. Sydney, Angus and Robertson, 1962. 18s 6d.

HEDDLE, Enid, *ed.* The boomerang book of Australian poetry. Melbourne, Longmans, 1956. $1.28.

HEDDLE, Enid, *ed.* Boomerang book of legendary tales. Melbourne, Longmans, 1957. $1.85.

HEDDLE, Enid. How Australian literature grew, by Enid Moodie Heddle and Iris Millington. Melbourne, Cheshire, 1962. $1.95.

HILL, R. Bushland and seashore; an Australian adventure. Melbourne, Lansdowne, 1962. $3.00.

LINDSAY, Norman. The magic pudding. Sydney, Angus and Robertson, 1963. $2.50.
First published in 1918.

MACINTYRE, Elisabeth. Hugh's zoo. London, Constable, 1965. 12s.

MASS, Nuri. The wonderland of nature. Summer Hill, N.S.W., Writers' Press, 1966.

OTTLEY, R. By the sandhills of Yamboorah. London, Deutsch, 1965. 15s.

PALMER, Helen. The first hundred years, by H. G. Palmer and Jessie MacLeod. Melbourne, Longmans, 1954. $2.25.

PALMER, Helen. After the first hundred years, by H. G. Palmer and Jessie MacLeod. Melbourne, Longmans, 1961. $2.50.
A sequel, concerning the period 1900–1950, to *The first hundred years.*

PHIPSON, Joan. The family conspiracy. Sydney, Constable and Angus and Robertson, 1962. $1.75.

POIGNANT, A. Piccaninny walkabout; a story of two aboriginal children. Sydney, Angus and Robertson, 1957. $1.60.

POWNALL, Eve. The Australia book. New ed. Sydney, Sands, 1964. $1.95.

REES, L. The story of Karrawingi the emu. Sydney, Sands, 1965. $1.25.

SOUTH AUSTRALIA. *Public Library. Division of Lending Services.* Books for young people; an annotated list; part 1. 3rd ed. Adelaide, Libraries Board of South Australia, 1964.
Part 1 of a revision of its *Books for young people; a select list.*

SOUTHALL, I. Ash road. Sydney, Angus and Robertson, 1965. $2.25.

SPENCE, Eleanor. The green laurel. London, Oxford University Press, 1963. 18s. 6d.

TENNANT, Kylie. All the proud tribesmen. London, Macmillan, 1959. 14s 6d.

TENNANT, Kylie. Australia; her story; notes on a nation. London, Pan Books, 1964. 6s.

THIELE, C. M. February dragon. Adelaide, Rigby, 1965. $2.25.

TINDALE, N. B. Aboriginal Australians, by N. B. Tindale and H. A. Lindsay. Brisbane, Jacaranda for the Children's Library Guild of Australia, 1963. $1.95.

TURNER, Ethel. Seven little Australians. London, Ward, Lock, 1964. 8s. 6d.
First published in 1894.

WIGHTON, Rosemary. Kangaroo tales. Melbourne, Lansdowne, 1964. $3.00.

WOODBERRY, Joan. Rafferty rides a winner. London, Parrish, 1961. 10s 6d.

WOTHERSPOON, J. The Australian pet book. Melbourne, Lansdowne, 1962. $2.95.

WRIGHTSON, A. Patricia. The feather star. London, Hutchinson, 1962. 12s 6d.

Recent Publications of Interest

CHAPMAN, Jean. The wish cat. Sydney, Angus and Robertson, 1966. $2.25.

CHILD, J. Australian insects; an introduction for young biologists and collectors. 3rd ed. Gladesville, N.S.W., Periwinkle Press, 1966. 90c.

DUTTON, G. P. H. Seal bay, by Geoffrey Dutton and Hay. London, Collins, 1966. 12s 6d.

GOUGH, Irene. The golden lamb. Melbourne, Heinemann, 1966. $1.85.

MITCHELL, Elyne. Silver brumby kingdom. London, Hutchinson, 1966. 16s.

POIGNANT, A. The improbable kangaroo and other Australian animals. Sydney, Angus and Robertson, 1965. $4.75.

THIELE, C. M. The rim of the morning; six stories. Adelaide, Rigby, 1966. $2.25 cloth, $1.35 paper.

THOMSPSON B., *ed.* Once around the sun; an anthology of poetry by Australian children. Melbourne, Oxford University Press, 1966. $1.95.

DIRECTORIES, INDEXES AND BIBLIOGRAPHIES

(Works relating to a specific subject are listed under that subject rather than in this section.)

Standard Works in Print

AUSTRALIA. *Department of National Development. Resources Information and Development Branch.* Index to Australian resources maps of 1940–59. Canberra, 1963. $1.50.

AUSTRALIA. National Library. Australian bibliography and bibliographical services. Canberra, Australian Advisory Council on Bibliographical Services, 1960. $1.50.

AUSTRALIA. National Library. Australian films; a catalogue of scientific, educational and cultural films, 1940–1958. Canberra. Govt Pr, 1959. $1.25. Annual supplements, 35c.

AUSTRALIA. National Library, Newspapers in Australian libraries; a union list. 2nd ed. Canberra, Australian Advisory Council on Bibliographical Services, 1965. $4.00.

AUSTRALIA. *National Mapping Council.* Pictorial index of activities. Canberra, Department of National Development, 1959 to date. Annual. Gratis.

AUSTRALIA. *Royal Australian Navy. Hydrographic Service.* Catalogue and index of Australian charts and British Admiralty charts of Australian waters. Sydney, 1967. $2.00.

THE AUSTRALIAN and New Zealand law list and compendium. Sydney, Butterworth, 1914 to date. Annual. $6.80.

AUSTRALIAN government publications. Canberra, National Library of Australia, 1961 to date. annual $2.00.
From 1952 to 1960 a publication with the same title was issued monthly in processed form and cumulated in *Annual Catalogue of Australian Publications.*

AUSTRALIAN national bibliography. Canberra, National Library of Australia, 1961 to date.

Formerly appearing monthly, from January 1967 this publication will be issued four times a month, the last issue cumulating entries from the preceeding three issues and containing also new entries. It is cumulated annually and continues and expands the bibliographical listing which from 1936 to 1960 appeared as *Books published in Australia* and *Annual catalogue of Australian publications.*

Complete service, $13.00; monthly cumulations with annual volume, $8.00; annual volume, $2.50; monthly cumulations, 50c. ea, other single issues, 15c ea.

AUSTRALIAN public affairs information service; a subject index to current literature. Canberra, National Library of Australia, 1945 to date. Monthly. 50c ea. $2.50 per annual cumulation, $8.00 p.a. for complete service.

CURRENT Australian serials; a subject list. Canberra, National Library of Australia, 1963 to date. Annual. 75c ea. Processed.

FERGUSON, *Sir* John. Bibliography of Australia; v. 1–6; 1784–1900. Sydney, Angus and Robertson, 1941 to date. v. 1–2 o.p., v. 3, $12.60, v. 4–6, $21.00 ea., v. 7 in preparation.

GUIDE to collections of manuscripts relating to Australia. Compiled by the National Library of Australia. Canberra, Govt, Pr, 1964 to date. $32.00 per v.

This work issued progressively in loose leaf binders describes collections in various repositories throughout Australia.

MARSHALL, Mary, *ed.* Union list of higher degree theses in Australian university libraries. Hobart, University of Tasmania Library, 1959. $2.00.

Three annual supplements to this list have been published.

PRESS directory of Australia and New Zealand. Sydney, Country Press, 1914 to date. Irreg. Latest issue, 1966. $5.00.

SERIALS in Australian libraries; social sciences and humanities; a union list. Canberra, National Library of Australia, 1963 to date. 2v.

Issued in loose leaf form at $50.00 a set, or $10.00 p.a. for five years.

SOCIAL SCIENCE RESEARCH COUNCIL OF AUSTRALIA. Bibliography of research in the social sciences in Australia, 1960–1963. Canberra, 1966. $4.50.

Earlier volumes cover the period 1954–1957 and 1957–1960.

Recent Publications of Interest

AUSTRALIA. *National Library.* Index atlas to maps in series in the Map Collection, National Library of Australia. Canberra, 1966, v. 1 (Pts 1, 2 and revisions) $24.00.

AUSTRALIA. *National Library. Mathews Collection.* Checklist to the Mathews Ornithological Collection. Canberra, National Library of Australia, 1966. $4.00.

BORCHARDT, D. H. Australian bibliography; a guide to printed sources of information. 2nd ed. Melbourne, Cheshire, 1966. $4.00.

CAMERON, W. J., *ed.* Short title catalogue of books printed in the British Isles, the British Colonies and the United States of America and of English books printed elsewhere, 1701–1800, held in the libraries of the Australian Capital Territory, edited by William J. Cameron and Diana J. Carroll. Canberra, National Library of Australia, 1966. 2v. $10.00.

LANCASTER, H. O. Bibliography of vital statistics in Australia and New Zealand. Sydney, Australasian Medical Publishing Company, 1964. $1.00.

TYSON, B. T. The topographical map series of Australia. Melbourne, 1965. $11.00.

DIARY OF PRINCIPAL ECONOMIC EVENTS, 1966-67

The principal economic events in earlier years were shown in the following issues:

Years	*Year Book No.*	*Pages*
1931 to 1938	33	968–77
1939 to 1944	36	1129–41
1945 to 1948	37	1235–45
1949 to 1951	39	1331–40
1952 to 1955	42	1149–60
1956 to 1958	46	1185–92
1958–59 to 1961–62	48	1188–1200
1962–63	49	1253–56
1963–64	50	1283–88
1964–65	51	1269–74
1965–66	52	1185–88

The year 1966–67 was marked by an increase in the rate of economic progress as compared with the previous year.

In current prices gross national expenditure increased by about 8 per cent in 1966–67 compared with an increase of 6 per cent in 1965–66, while gross national product increased by 9 per cent in 1966–67 compared with 5 per cent in 1965–66. The larger rise in the 1966–67 product was assisted by a recovery from the effects of drought conditions, which, in the previous year, had substantially reduced the farm output. The Consumer Price Index, the components of which relate to a substantial portion of total consumption expenditure, increased by 2.7 per cent between 1965–66 and 1966–67. This, together with other available but incomplete price and cost data, indicates that the average increase in prices of all items included in gross national expenditure may have been a little more than 3 per cent.

Exports of goods and services increased by 11 per cent compared with an increase of 2 per cent in imports, but after allowing for other balance of payments factors international reserves decreased by $177 million.

An increase in retail sales (excluding motor vehicles, parts, petrol, etc.) of 6 per cent was accompanied by an increase in outstanding balances in transactions financed by instalment credit from $1,431.1 million in June 1966 to $1,441.3 million in June 1967, and an increase of $336.3 million in loans, advances, and bills discounted by Major Trading Banks. At the same time the combined trading bank and savings bank deposits reached $11,378 million. The liquid assets and Government securities ratio of Major Trading Banks decreased from 24.2 per cent in June 1966 to 23.7 per cent in June 1967, but the amount in the banks' Statutory Reserve Deposit Accounts with the Reserve Bank increased from $474 million in June 1966 to $475 million in June 1967.

There was continued activity in the iron ore mining industry during the year, and substantial shipments of ore were shipped to Japan. New mineral deposits of silver-lead, phosphate and vanadium were discovered, and a considerable expansion in existing activity took place. Additional discoveries were made in the oil and natural gas industry, particularly in islands off the coast of Western Australia and off-shore leases in Bass Strait (Victoria).

Average weekly earnings increased by 8.0 per cent from June 1966 to June 1967 compared with an increase of 3.4 per cent in the previous year. The 'Total Wage' judgment of the Commonwealth Conciliation and Arbitration Commission in the 1967 National Wages Case handed down in June 1967 increased wages under Commonwealth awards by $1 a week.

Climatic conditions during 1966–67 were widely varied. Central Australia received the heaviest rainfall since 1957, and rail services were reduced because of damage to the track. In Queensland and parts of New South Wales, floods caused considerable damage towards the end of the year. On the other hand, Tasmania suffered from lack of rain, and the Hobart and southern Tasmania area experienced the worst bush-fires in history early in February, and New South Wales and Victoria suffered bush-fires though of lesser intensity.

Building activity increased again, although not quite up to the 1964–65 level, and the number of new houses and flats commenced increased from 107,200 in 1965–66 to 114,800 in 1966–67. Motor sales, as shown by the number of new motor vehicles registered, also reached a higher figure, increasing from 392,000 in 1965–66 to 403,000 in 1966–67. Total civilian employment (other than rural) continued to increase and in June 1967 was 3.8 million, an increase of 2.0 per cent on the previous year.

1966–67

7 *July*. Contract for the supply of 100,000 tons of re-roll steel billets to Pakistan, estimated to be worth about $6 million.

8 *July*. Commonwealth Conciliation and Arbitration Commission announced an increase of $2.00 in the basic wage.

14 *July*. Commonwealth cash loan opened, issued with yields of 5 per cent for 3 years, 5.16 per cent for 9 years, 5.25 per cent for 22 years, and 5.25 per cent for 35 years. An amount of $88 million was raised.

25 *July*. Arrangements made for loan of $20 million by Australia to New Zealand to strengthen New Zealand's overseas reserves position.

29 *July*. Oil arrived at Westernport Bay for commissioning of new $30 million refinery at Crib Point, Victoria. First basic industry on Mornington Peninsula.

1 *August*. Import duties on fully assembled cars, station wagons, utilities, and panel vans increased by 10 per cent.

5 *August*. Australian price of copper was increased, by $380, to $1,250 a ton (*see* page 1101).

16 *August*. Commonwealth Budget for 1966–67 introduced into House of Representatives. In 1965–66 receipts of the Consolidated Revenue Fund were $4,879.2 million, and expenditure (excluding payments of $210.5 million to the Loan Consolidation and Investment Reserve) amounted to $4,668.7 million. The main items of revenue (1964–65 figures shown in parentheses) were: income taxes, $2,549.7 million ($2,295.6 million); excise duties, $751.2 million ($631 million); customs duties, $272.4 million ($268.8 million); sales tax, $369.4 million ($362.8 million); and pay-roll tax, $161.9 million ($150.1 million). The main items of expenditure were: payments to or for the States, $1,117.0 million ($976.9 million); social and health services, $941.6 million ($890.4 million); defence services, $747.9 million ($609.0 million); war and repatriation services, $263.7 million ($239.0 million); capital works services, $418.1 million ($387.0 million). The budget for 1966–67 provided for an estimated expenditure of $5,235.9 million, to be provided from Consolidated Revenue Fund.

23 *August*. First shipment of iron ore (52,000 tons valued at $464,000) from Mount Tom Price, the largest single cargo ever to leave Australian shores, left Dampier, Western Australia, for Japan.

26 *August*. Announcement of 6.4 per cent overall increase in cargo freight rates from Australia to Europe.

31 *August*. 1966–67 Budget introduced into South Australian House of Assembly. In 1965–66 revenue amounted to $236,816,000 and expenditure to $243,650,000, leaving a deficit of $6,834,000. For 1966–67 it was estimated that revenue would be $255,702,000 and expenditure $258,018,000, leaving a deficit of $2,316,000.

4 *September*. General increase of 3 per cent in airline fares and freight rates approved by Minister for Civil Aviation.

7 *September*. 1966–67 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1965–66 resulted in a deficit of $2,021,000. Receipts of the Consolidated Revenue Fund totalled $83,564,000 and expenditure $85,585,000. For 1966–67 it was estimated that expenditure would be $93,481,000 and revenue $91,139,000, leaving a deficit of $2,342,000.

8 *September*. Stevedoring Industry Conference told by chairman that principle of permanent employment for waterside workers had been approved. Administrative details still to be finalised.

9 *September*. Bank of New South Wales introduced new system of unsecured personal loans up to maximum of $1,000, at flat rate of interest of 6 per cent. (Other banks later introduced similar systems.)

14 *September*. Agreement between Commonwealth and Queensland Governments for loan of $19 million by Commonwealth to assist sugar industry in the State.

1966–67 Budget introduced into Victorian Legislative Assembly. In 1965–66 revenue amounted to $508,553,000 and expenditure to $516,689,000. The 1966–67 Budget provided for expenditure of $554,913,000 and revenue of $552,491,000, leaving a deficit of $2,423,000. Railway operating expenses and income were estimated at $109,693,000 and $106,329,000 respectively, giving a deficit of $3,364,000.

21 *September*. Third report of Australian Universities' Commission and first report of Commonwealth Advisory Committee on Advanced Education presented in Senate. They foreshadowed spending by Commonwealth and State Governments of $610 million on tertiary education during next three years.

23 *September*. Big power restrictions in Victoria as a result of industrial dispute concerning State Electricity Commission's power station workers. Estimated that 200,000 workers affected in other industries.

26 *September*. Special Bonds Series N issued at par with interest rising from 4.50 to 5.25 per cent and optional redemption prices at par to 103 per cent at maturity.

27 *September*. 1966–67 Budget introduced into New South Wales Legislative Assembly. During 1965–66 the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services, and Maritime Service Board resulted in a deficit of $21,524.000 (total revenue overall was $773,227,000, total expenditure $794,752,000). After providing for debt charges there was a deficit of $12,251,000 on the Department of Railways, a deficit of $5.625,000 on the Metropolitan and Newcastle Transport Services, and a surplus of $95,000 from the operations of the Maritime Services Board. The 1966–67 Budget provided for an overall deficit of $8,834,000 (revenue $825,336,000, expenditure $834,170,000). After meeting debt charges, it was estimated that there would be a deficit of $504,000 on the Railways, a deficit of $5,340,000 on the Metropolitan and Newcastle Transport Services, and a surplus of $40,000 on the Maritime Services Board.

29 *September*. 1966–67 Budget introduced into Queensland Legislative Assembly. In 1965–66 receipts of the Consolidated Revenue Fund amounted to $294,502,000 and expenditure to $298,022,000. For 1966–67 it was estimated that revenue would amount to $324,864,000 and expenditure to $324,836,000, leaving a surplus of $28,000.

1 *October*. Average increase of 15 per cent in trading bank charges for current accounts came into effect throughout Australia.

5 *October*. State Electricity Commission of Victoria let $43 million contract for supply of two reheat boilers for its new Yallourn 'W' Power Station.

6 *October*. 1966–67 Budget introduced in Western Australian Legislative Assembly. Financial transactions for the year 1965–66 resulted in a deficit of $10,000. For 1966–67 it was estimated that expenditure would be $223,054,000 and revenue $222,436,000, leaving a deficit of $618,000.

11 *October*. Special excursion fares and concessions to young people introduced for air travel between Australia and overseas.

12 *October*. Commonwealth Cash Loan opened, issued with yields of 5 per cent for 2 years 11 months, 5.16 per cent for 10 years 9 months and 5.25 per cent for 34 years 9 months. An amount of $194 million was raised.

17 *October*. Flow of natural gas reported from Marlin B1 well in Bass Strait.

26 *October*. Following report by Tariff Board, Commonwealth Government announced strong tariff measures, ranging from 25 per cent to 40 per cent general duty, to protect Australian chemical industry.

27 *October*. Contract for purchase by Japan of 100 million tons of iron ore (worth $800 million) from Mount Newman, Western Australia, the largest single mineral contract in Australia so far. Delivery to be spread over fifteen years.

28 *October*. Announced that Australia's first major deposit of phosphate had been discovered near Cloncurry, Queensland.

29 *October*. Amendment to Commonwealth Public Service Act proclaimed, providing for permanent employment of married women by Commonwealth.

1 *November*. Minimum housing and food standards for Aboriginal employees in Northern Territory gazetted. New minimum wage rates for Aborigines employed under Northern Territory Wards Employment Ordinance ($6.90 for non-pastoral workers, $14.50 for pastoral workers) became effective.

4 *November*. Western Australian State Basic Wage increased to $33.50.

24 *November*. Industrial dispute over wage claims concerning Qantas pilots began; 3,000 staff members also affected. Settled after twenty-seven-day disruption of services.

14 *December*. Contract for $56 million let by Electricity Commission of New South Wales for supply of four steam generators for Liddell Power Station.

24 *December*. Commonwealth Treasury Note terms adjusted, price 98.95, to yield 4.256 per cent per annum at 13 weeks maturity.

29 *December*. Commonwealth and Victorian Governments reached agreement on development of off-shore oil and natural gas in Bass Strait. Victorian Government and oil search companies to get concessions on royalties asked for by Commonwealth.

23 *January*. New five-year plan for Australian dairy industry submitted to Government by Australian Primary Producers' Union.

28 *January*. Maritime Services Board, Sydney, let $4.5 million contract for construction of container terminal wharves at White Bay, Balmain, New South Wales.

7 *February*. Worst bushfires in history of Tasmania caused serious loss of life and extensive property damage in Hobart environs and southern Tasmania. Commonwealth provided $4.5 million relief aid in grants and interest-free loans.

Commonwealth cash loan opened, issued with yields of 4.59 per cent for 3 years, 5 per cent for 9 years 8 months, 5.25 per cent for 21 years 5 months, and 5.25 per cent for 34 years 5 months. An amount of $204 million was raised.

14 *February*. Australian Agricultural Council decided to maintain existing margarine quota limits.

16 *February*. Commonwealth Government relaxed State tax reimbursement formula to grant States more money.

23 *February*. Commonwealth Government announced that it would spend up to $14 million a year for the next three years for wool promotion and research, on a dollar for dollar basis with amounts raised by wool industry.

25 *February*. Vanadium deposits estimated at 100 million tons found near Jameson Range, 520 miles north-east of Kalgoorlie, Western Australia.

26 *February*. Australian Workers' Union affiliated with Australian Council of Trade Unions.

1 *March*. Interstate rail fares increased by 10 per cent throughout Australia. Trade talks begun in New Zealand between Australian and New Zealand Ministers for Trade.

6 *March*. Heavy rains in Northern Territory delayed work on relaying of Frances Creek to Darwin railway and cut rail and road links with Alice Springs.

13 *March*. Record floods in Northern Queensland caused property damage and food shortages. Many towns isolated.

16 *March*. $5 million main contract for Pindari Dam (northern New South Wales) let to French company.

3 *April*. Prospectus for $25 million capital issue filed by Australian-based mining group—biggest yet made. Two major oil companies agreed on $150 million 2-year joint development programme for Bass Strait oilfield.

7 *April*. Commonwealth 50 million Swiss francs ($10.2 million) loan opened in Basle, Zurich and Lucerne, issued at par with interest at 5.50 per cent for a period of 15 years. The loan was fully subscribed.

Commonwealth and State Attorney-Generals, State Ministers for Mines and Minister for National Development settled on formula for sharing of off-shore oil and gas rights (*see also* 29 December, page 1281).

11 *April*. Under new regulations for export of uranium, exporters must find new deposits at least equal in quantity to proposed exports.

17 *April*. Magistrate ruled that Victorian Egg Board had no power to deduct Commonwealth levies from egg producers.

23 *April*. First tanker loaded with oil from Barrow Island, Western Australia.

4 *May*. Commonwealth cash loan opened, issued with yields of 4.60 per cent for 2 years 9 months, 5 per cent for 9 years 5 months, 5.25 per cent for 21 years 2 months, and 5.25 per cent for 34 years 2 months. An amount of $69 million was raised.

10 *May*. Natural gas discovered on Pascoe Island off Western Australian coast.

12 *May*. Expert committee recommended $30 million partial rehabilitation of Nauru phosphate workings.

18 *May*. Copyright Bill 1967 introduced by Attorney-General.

19 *May*. Oil strike reported near Roma, Queensland.

31 *May*. Oil strike, 1,500 barrels a day, in Kingfish A1 well in Bass Strait.

2 *June*. Minister for National Development announced that the Snowy Mountains Hydro-electric Authority would be disbanded as an integrated construction force. No more than 700 of the present 3,000 odd employees are to be retained for investigation design and scientific work.

5 *June*. Judgment handed down by Commonwealth Arbitration Commission introducing 'Total wage' concept (*see* Appendix, page 1294) and increasing wage by $1.00 a week.

6 *June*. Commonwealth $US 25 million loan opened in New York, issued at 97.50 with interest at 6.50 per cent for a period of 15 years; fully subscribed, principally from European sources.

15 *June*. Agreement signed giving Nauruans full control of the island's phosphate deposits, transfer to be completed in three years. Royalty payments for 1966–67 increased from $1.75 million to $4.50 million.

28 *June*. Loan Council met in Canberra and approved borrowing programme for 1967–68 of $677 million ($554 million for State Works, $123 million for Commonwealth-State Housing).

CHRONOLOGICAL TABLE

CHRONOLOGICAL TABLE OF CHIEF EVENTS IN AUSTRALIA SINCE 1955

NOTES. In issues of the Year Book up to No. 48 (*see* No. 48, page 1201) this table covered events back to the establishment of settlement in Australia in 1788. Later issues up to No. 50 (*see* No. 50, page 1289) covered events back to 1945. This issue covers the years 1955 to 1966 and the first half of 1967.

For each earlier year this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

1955 First power generated by Snowy Mountains Hydro-electric Authority. Australian population reached 9,000,000. Cocos (Keeling) Islands became Territory under authority of Commonwealth.

1956 Amendment to Conciliation and Arbitration Act altered the structure of the arbitration machinery by separating judicial functions from conciliation and arbitration functions.

1957 High Court ruled that interstate vehicles could not be compelled to register in New South Wales, but upheld validity of Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. National Capital Development Commission set up to co-ordinate development of Canberra as centre of government.

1958 Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. Christmas Island (Indian Ocean) transferred to Australian Administration.

1959 Annual Holidays Act, 1944–1958 provided for three weeks annual holiday for all New South Wales workers. Population reached 10 million.

1960 Provision made for Social Service benefits to be paid to Australian Aborigines. *Commonwealth Banks Act* 1959 and *Reserve Bank Act* 1959 proclaimed (*see* page 682). Goods comprising 90 per cent of Australia's current imports exempted from licensing provisions. National Service training suspended. Commonwealth Government announced special economic measures designed to counter inflationary trend and safeguard overseas funds.

1961 Australia's first guided missile base established at Williamtown (New South Wales). Commonwealth *Matrimonial Causes Act* 1959 unifying State Acts became operative (*see* page 528). Commonwealth Government announced tax concessions to exporters for promotional expenses in developing overseas export markets. Oil discovered in south-west Queensland. Australian population census taken. Iron ore deposits estimated at 1,800 million tons discovered at Pilbara (Western Australia).

1962 Commonwealth and Western Australian Electoral Acts amended to provide for votes for Aborigines. Work began on standardisation of rail gauge from Kwinana to Kalgoorlie (Western Australia). Commonwealth provided $3,530,000 grants to States for assistance to universities in development of training facilities for medical students in teaching hospitals. First production of bauxite ore from Weipa deposits. Aborigines exercised voting rights in Northern Territory for first time.

1963 Commonwealth Committee of Economic Enquiry appointed to investigate broad aspects of the Australian economy. Approval given to agreement for United States to operate a naval communications station at North West Cape, Western Australia. Western Australian Government signed $156 million contract for the establishment and development of a new iron and steel industry in the State. Australia signed Nuclear Test Ban Treaty. Uniform *Marriage Act* 1961 came into effect. Decimal currency legislation introduced into House of Representatives (*see* Year Book 52, page 675). Australian population reached 11 million.

1964 Agreement concluded with United States of America on establishment of meteorological research station at Pearce (Western Australia) R.A.A.F. Base. R.A.N. Destroyer *Voyager* sunk in collision off Jervis Bay with loss of eighty-two lives. First general election from common roll in Papua-New Guinea. New South Wales Government employees granted four weeks annual leave. Commonwealth Government announced programme of assistance for schools for teaching of science. Commonwealth Bureau of Roads to be set up to make a full and continuous study of the roads problem. Moonie to Brisbane oil pipeline opened and Australia's first commercial oil production started. Northern Territory Legislative Council passed legislation removing discrimination against Aborigines. Army sent instructors and advisers to Vietnam. First applications lodged for Commonwealth Home

1964 –cont Savings Grants. United States and Australian Governments agreed to establish joint educational foundation to succeed Fulbright Scheme. Commonwealth Government approved construction of $2 million tracking station at Gove in the Northern Territory for ELDO (*see* page 87). Northern Territory *Social Welfare Ordinance* 1964 (*see* page 124) repealed *Welfare Ordinance* 1953–1963 and provided for assistance without control for any person socially or economically in need of it. Commonwealth Government established licensing system for intrastate civil aviation. Australian forces saw action in Malaysia. Prime Minister announced expansion of defence provisions involving additional defence expenditure of $2,440 million over three years, resumption of National Service Training and establishment of special Reserve Forces (*see* page 76). *National Service Act* 1964 passed. Commonwealth Government allowed export of iron ore to Japan from fields in Western Australia (*see* page 1064). First awards of Commonwealth Scholarships to secondary school students.

1965 New passenger car ferry, the *Empress of Australia*, commissioned for Sydney-Hobart run. Full High Court judgment on intra-state airlines case held that New South Wales Air Transport Act requiring intra-state services to hold a State licence was valid, but also that four out of five relevant Commonwealth regulations were valid, so that airlines needed Commonwealth licence as well. Australia signed major defence agreement to buy $312 million of aircraft and other military equipment in next three years. Royal Australian Mint opened. Martin Report on tertiary education tabled in House of Representatives (Commonwealth will provide grants, subject to matching grants by States, rising from $5 million to $50 million over six-year period for development of technical education at tertiary level and will award 1,000 additional scholarships, to total of 6,000). Australia changed to metric system for dispensing of medicine. New steelworks opened at Whyalla (South Australia). 1st Battalion, Royal Australian Regiment, embarked for service in South Vietnam. Australia agreed to establishment of Legislative Council for Nauru and payment of substantially higher phosphate royalties. Report of Vernon Committee of Economic Enquiry tabled in House of Representatives. First trade agreement between Australia and U.S.S.R. signed in Moscow. One of world's largest seismological installations was set up in Northern Territory over a period of time by United Kingdom Atomic Energy Authority in association with Australian National University. Economic sanctions imposed on Rhodesia. Mills Cross radio telescope opened by Prime Minister near Hoskinstown (N.S.W.). Housing Loans Insurance Corporation commenced operations in all States. Largest Australian built ship, the 49,000 ton bulk ore carrier *Darling River*, launched.

1966 *January*. Mr Harold Holt sworn in as Prime Minister. Dame Annabelle Rankin included in new ministry, first woman to administer a Government department in Australia.

February. Australia adopted dollar–cent system of decimal currency.

March. Immigration laws amended to provide for relaxation of restrictions on entry of persons of non-European race (*see* page 200). Prime Minister announced the replacement of the Australian Army battalion in Vietnam by an Army Task Force of two battalions and support units. H.M.A.S. *Perth*, Australia's new guided missile destroyer, arrived in Sydney. Parliament passed Act giving member for Australian Capital Territory full voting rights. Oil flowed from well 27 miles off-shore from Lakes Entrance (Victoria).

May. Europa 1, first ELDO rocket, launched at Woomera. First National Serviceman in Australian army ever to die on foreign soil killed in action in Vietnam. Australia's third commercial oilfield declared at Barrow Island, 50 miles off Western Australian coast.

June. World's largest solar still, and first to be used for town water supply in Australia, set up at Coober Pedy (South Australia). First shipment of iron ore from Mount Goldsworthy field left Port Hedland (Western Australia). Australia joined eight other Asian and Pacific nations in forming Asian and Pacific Co-operation Council (ASPAC). SEATO Conference held in Canberra. 1966 Census taken. ANZUS foreign ministers held Conference in Canberra. Australian and New Zealand Prime Ministers held Conference in Canberra.

July. Commonwealth Conciliation and Arbitration Commission announced an increase of $2 a week in the Basic Wage. Mr Justice Eggleston appointed as first President of Trade Practices Tribunal. Motor vehicle design committee set up by Commonwealth Government to report on car safety. Arrangements concluded for loan of $20 million by Australia to New Zealand to strengthen New Zealand's overseas reserves position. Sir Robert Menzies installed as Lord Warden of the Cinque Ports.

August. Commonwealth Government signed $8 million contract for 1,500 mile transcontinental telephone link from Northam, Western Australia to Kimba, South Australia. Most drastic water restrictions in the history of the Murrumbidgee Irrigation Areas announced, Burrinjuck Reservoir only one-third full. First shipment of iron ore (52,000 tons valued at $464,000) from Mount Tom Price, the largest single cargo ever to leave Australian shores, left Dampier, Western Australia, for Japan. Prime Minister left for conference of Commonwealth Prime Ministers in London.

1966 –*cont* *September*. Seventh Biennial Regional Conference on Water Resources Development organised by ECAFE held in Canberra. Stevedoring Industry Conference told that principle of permanent employment for waterside workers had been approved; administrative details still to be finalised. President of British Board of Trade made official visit to Australia. Viscount aircraft crashed in Queensland with loss of twenty passengers and four crew. First migrants arrived under new Special Passage Assistance Programme (*see* pages 197–8).

October. United States, United Kingdom, New Zealand, and Australia participated in largest naval exercise in Australian waters since World War II. President Johnson of United States of America made four-day visit to Australia. Australian delegation attended Vietnam peace talks in Manila. Amendment to Commonwealth Public Service Act proclaimed providing for permanent employment of married women by Commonwealth. Announced that National Servicemen would be eligible for re-establishment loans of up to $6,000 at 4½ per cent interest on discharge.

November. Minimum housing and food standards for Aboriginal employees in Northern Territory gazetted. New minimum wage rate for Aborigines employed under Northern Territory Wards Employment Ordinance ($6.90 for non-pastoral workers, $14.50 for pastoral workers) became effective. First television programmes interchanged direct between Britain and Australia by means of the orbiting satellite Intelstat two.

December. Posthumous Victoria Cross awarded to Warrant Officer K. A. Wheatley for gallantry in Vietnam. Australia made gift of 150,000 tons of wheat and flour to India. New Commonwealth Department of Education and Science established. Hon. H. Opperman appointed first Australian High Commissioner to Malta. Australia's commitment in Vietnam increased by 1,700 men, 12 tanks, 2 minesweepers, and 8 bombers.

1967 *January*. Marshal Ky, Prime Minister of South Vietnam, made official visit to Australia. Registration for National Service intended to cover aliens resident in Australia. Sir Francis Chichester reached Australia at end of outward leg of round-the-world solo yacht voyage. Worst bushfires in history of Tasmania caused loss of 51 lives and property damage estimated to be more than $20 million in Hobart environs and southern Tasmania. Commonwealth provided relief aid in grants and interest-free loans to supplement State aid. Australia-wide Red Cross Appeal heavily supported.

February. Prime Minister made seven-day visit to New Zealand. Australian Agricultural Council decided to maintain existing margarine quota limits. First George Medal in Vietnam War awarded to helicopter crewman, Sgt G. Buttriss.

March. New White Ensign adopted for use in Australian Navy. Navy took over Vietnam bound freighters when seamen's union placed ban on cargo. Honeysuckle Creek space tracking station for Apollo moon-probe opened by Prime Minister. Contract let for construction at Parramatta of $2.8 million training centre for retarded children. Queen Elizabeth opened SEACOM communications cable linking Australia with south-east Asia. Duke of Edinburgh paid short visit to Australia to discuss 3rd Commonwealth Study Conference. Prime Minister made two-week visit to South-east Asia.

April. Trial system of oral customs declaration for air travellers commenced. Commonwealth and State Governments reached agreement on off-shore oil and gas legislation. National Capital Development Commissioner appointed by New South Wales Government as planner to survey future development of 'The Rocks' (Sydney). Under new regulations for export of uranium, exporters must find new deposits at least equal in quantity to proposed exports. $3.5 million naval base to be built on Manus Island. United Nations World Symposium on man-made forests held in Canberra. First tanker loaded with oil from Barrow Island (W.A.). Referendum in northern New South Wales concerning proposed new State of New England resulted in defeat of proposal.

May. Agreement made between Australia and United Kingdom for building of 150-inch optical telescope at Siding Springs, New South Wales. Commonwealth Government issued details of scheme for light passenger aircraft network. New oil strikes reported near Roma, Queensland and in Kingfish A1 well in Bass Strait. Members of Women's (Defence) Services may serve overseas in future. Two Commonwealth referendums held—proposal to abolish link between size of Senate and House of Representatives defeated; removal from Constitution approved of discriminatory wording concerning Aborigines. (*See* Appendix, page 1293).

June. Minister for National Development announced that Snowy Mountains Hydro-electric Authority would be disbanded as an integrated construction force on completion of scheme. First direct satellite telecast from North America to Australia marked Australia's day at Montreal Expo '67. New judicial inquiry into *Voyager* disaster commenced (*see* 1964). Australia's first Oberon class submarine left United Kingdom shipyard for Australia. Senate, recalled during recess, disallowed post and telephone charge increases. Senior Japanese defence officers visited Australia.

STATISTICAL SUMMARY: AUSTRALIA

In most cases where figures are available back to 1861, these were shown in Year Book No. 39. pages xxviii–xxix.

The statistics in this summary relate in general to the periods shown in the table headings where the statistics relate to other periods, this is indicated in footnotes.

		Year ended 30 June—							
		1902	1912	1922	1932	1942	1952	1962	1967
DEMOGRAPHY(*a*)—									
Population(*b*)	'000 males	2,005	2,382	2,799	3,333	3,599	4,311	5,352	5,863
	'000 females	1,820	2,192	2,712	3,220	3,545	4,217	5,249	5,788
	'000 persons	3,825	4,574	5,511	6,553	7,144	8,528	10,601	11,651
Natural increase	'000	56.6	74.3	82.1	61.9	63.3	111.5	151.0	118.7
Net oversea migration	'000	3.0	74.4	17.5	−10.1	5.2	111.4	61.5	86.9
Marriages	'000	28	39	47	39	75	77	77	96
	Rate(*c*)	7.3	8.8	8.6	6.0	10.6	9.2	7.3	8.3
Divorces(*d*) and judicial separations		398	509	1,490	1,969	3,351	7,330	6,751	9,921
Births	'000	103	122	136	119	135	193	240	223
	Rate(*c*)	27.2	27.2	25.0	18.2	18.9	23.0	22.9	19.3
Deaths	'000	46	48	54	57	71	82	89	104
	Rate(*c*)	12.2	10.7	9.9	8.7	10.0	9.7	8.5	9.0
Infant deaths	'000	10.7	8.4	9.0	5.0	5.3	4.9	4.7	4.0
	Rate(*e*)	103.6	68.5	65.7	42.1	39.7	25.2	19.5	18.2
WAGES (ADULT MALES)(*b*)—									
Minimum weekly wage rate index numbers(*f*)		n.a.	n.a.	n.a.	n.a.	38.5	85.8	129.5	152.2
PRIMARY AND SECONDARY INDUSTRIES—									
Agricultural(*g*)—									
Wheat	Area mill. acs	5.1	7.4	9.7	14.7	12.0	10.4	14.7	(*l*) 20.3
	Yield mill. bus.	39	72	129	191	167	160	247	462
	Av. yield bus.	7.5	9.6	13.3	12.9	13.9	15.4	16 8	22.8
Oats	Area '000 acs	461	617	733	1,085	1,460	2,365	3,097	3,768
	Yield mill. bus.	9.8	9.6	12.1	15.2	22.3	34.5	55.1	60.7
	Av. yield bus.	21.2	15.5	16.6	14.0	15.3	14.6	17.8	16.1
Barley	Area '000 acs	75	116	299	342	784	1,118	2,383	2,298
	Yield mill. bus.	1.5	2.1	6.1	6.3	18.0	21.9	41.5	41.8
	Av. yield bus.	20.4	17.7	20.4	18.4	23.0	19.6	17.4	18.2
Maize	Area '000 acs	295	340	305	269	301	170	211	197
	Yield mill. bus.	7.0	8.9	7.8	7.1	7.4	4.0	7.3	4.9
	Av. yield bus.	23.9	26.3	25.7	26.2	24.7	23.7	34.7	25.0
Hay	Area '000 acs	1,688	2,518	2,995	2,635	2,758	1,549	2,274	2,780
	Yield '000 tons	2,025	2,868	3,902	3,167	3,575	2,345	3,693	4,179
	Av. yield tons	1.20	1.14	1.30	1.20	1.30	1.51	1.62	1.50
Potatoes	Area '000 acs	110	130	149	145	99	118	94	96
	Yield '000 tons	323	301	388	397	333	509	526	639
	Av. yield tons	2.94	2 31	2.60	2 74	3 35	4.31	5.57	6.63
Sugar-cane(*h*)	Area '000 acs	87	101	128	242	255	282	387	503
	Yield '000 tons	1,368	1,682	2,437	4,213	5.154	5,327	9,577	14,155
	Av. yield tons	15.7	16.7	19.0	17.4	20.3	18.9	24.8	28.1
Vineyards	Area '000 acs	64	61	92	115	130	136	133	140
	Wine mill gals.	5.3	5.0	8.5	14.2	15.6	35.3	41.7	34.0
Total area of crops	mill. acs	8.4	12.1	15.4	21.2	20.5	19.7	29.6	34.5
Pastoral, dairying, etc.—									
Livestock(*i*)	horses mill.	1.6	2.3	2.4	1.8	1.6	0.9	0.6	
	cattle ,,	8.5	11.8	14 4	12.3	13.6	14.9	18.0	18.3
	sheep ,,	72	97	86	111	125	118	158	164
	pigs ,,	0.9	1.1	1.0	1.2	1.4	1.0	1.7	1.8
Wool(*j*)	mill. lb	(*a*) 539	(*a*) 798	723	1,007	1,167	1,080	1,699	1,759
Butter	'000 tons	(*a*) 46	(*a*) 95	(*a*) 119	175	168	135	198	p 218
Cheese	,, ,,	(*a*) 5.3	(*a*) 7.1	(*a*) 14.6	14.0	30.1	40.6	55.7	p 68.7
Meat(*k*)—									
Beef and veal	'000 tons	n.a.	n.a.	339	350	534	582	791	p 868
Mutton and lamb	,, ,,			218	307	372	282	587	p 575
Pigmeat	,, ,,			51	70	121	85	120	p 139
Total meat	,, ,,	n.a.	n.a.	608	727	1,027	949	1,498	p 1,583

(*a*) Year ended previous December. (*b*) At 31 December of previous year. (*c*) Number per 1,000 of mean population. (*d*) Decrees made absolute, including decrees for nullity of marriage. (*e*) Number per 1,000 live births. (*f*) New series. Base: 1954=100. Excludes rural industry. (*g*) Season ended in year shown. (*h*) Cane cut for crushing. (*i*) At 31 December of previous year for years to 1942, at 31 March thereafter. (*j*) In terms of greasy. (*k*) Carcass weight in terms of fresh meat. (*l*) Except for wheat, crop figures are for 1965–66.

See headnotes on page 1287

		Year ended 30 June—							
		1902	1912	1922	1932	1942	1952	1962	1967
PRIMARY AND SECONDARY INDUSTRIES—*continued*									
Minerals(*a*)(*b*)—									
Copper(*c*)	'000 tons	n.a.	n.a.	n.a.	13.5	20.9	18.1	95.6	109.3
Gold(*c*)	'000 fine oz	3,300	2,484	758	595	1,497	896	1,076	914
Lead(*c*)	'000 tons	n.a.	222.0	57.7	162.6	275.5	212.0	269.7	362.7
Zinc(*c*)	" "	(*d*)	190.3	20.7	97.5	170.0	189.2	311.2	366.7
Black coal	mill. tons	6.9	10.5	12.8	8.4	14.2	17.6	24.0	33.4
Brown coal	" "	..	(*d*)	0.1	2.2	4.6	7.8	16.3	21.8
Forestry—									
Sawn output of Aust. grown timber	mill. sup ft	(*a*) 452	(*a*) 605	590	237	914	1,393	1,352	p 1,437
Factories—									*m*
Number of factories	'000	(*e*)	14.5	18.0	21.7	27.0	45.8	58.5	61.7
Persons employed	"	(*e*)	312	379	337	725	978	1,121	1,294
Salaries and wages paid	$m	(*e*)	56	136	112	360	1,224	2,287	3,163
Net value of production—									
Chemicals, etc.	$m	n.a.	2.2	6.4	15.8	59.6	127.4	364.3	570.2
Industrial metals, etc.	"	n.a.	24.0	47.2	45.6	239.8	826.2	1,770.3	2,642.8
Textiles, etc.	"	n.a.	15.0	38.4	13.8	42.0	113.2	211.2	282.8
Clothing	"	n.a.			22.2	47.2	162.2	252.4	319.9
Food, etc.	"	n.a.	23.6	54.4	57.4	106.4	282.2	595.5	818.5
Paper, etc.	"	n.a.	8.4	18.0	19.2	34.2	136.4	326.9	459.5
All groups	"	58.2	95.0	225.0	222.0	633.0	2,049.8	4,394.6	6,275.4
Value of plant and machinery	"	n.a.	62.8	156.2	243.0	338.4	825.0	3,052.1	4,156.3
Value of land and buildings	"	n.a.	65.0	134.6	213.2	312.6	720.4	2,809.6	3,776.7
Net value of production(*f*)—									*m*
Agriculture	$m	47.6	77.6	163.8	99.4	128.0	493.4	733.0	861.1
Pastoral	"	54.4	105.4	150.2	86.0	170.8	801.0	962.7	1,188.5
Dairying	"	15.2	32.2	70.6	45.2	68.6	207.6	273.0	349.9
Poultry	"	4.0	8.0	18.0	11.4	13.0	63.0	49.7	62.6
Bee-farming	"	0.2	0.2	0.2	0.2	0.8	1.6	3.2	3.5
Total, rural	"	121.4	223.4	402.8	242.2	381.2	1,566.6	2,021.6	2,465.7
Trapping	"	n.a.	n.a.	n.a.	3.0	10.0	13.4	11.8	13.8
Forestry	"	5.6	9.6	18.2	7.8	20.4	75.8	95.2	114.6
Fishing and whaling	"		2.2	2.8	2.8	3.6	11.4	28.6	41.7
Mining and quarrying	"	44.0	46.6	40.0	27.0	66.8	194.4	274.5	443.2
Total, non-rural	"	49.6	58.4	61.0	40.6	100.8	295.0	410.1	613.3
Total, primary	"	171.0	281.8	463.8	282.8	482.0	1,861.6	2,431.7	3,079.0
Factories	"	58.2	95.0	225.0	222.0	633.0	2,049.8	4,394.6	6,275.4
Grand total	"	229.2	376.8	688.8	504.8	1,115.0	3,911.4	6,826.4	9,354.3
BUILDING—									
New houses and flats completed									*m*
	No. '000	n.a.	n.a.	n.a.	n.a.	(*l*) 15.4	80.1	86.3	112.8
	Value $m	n.a.	n.a.	n.a.	n.a.	(*l*) 29.0	354.0	593.2	869.9
OVERSEAS TRADE—		(*a*)	(*a*)						
Imports	$m f.o.b.	76	122	188	104	348	2,106	1,769	3,049
Exports	" "	100	158	256	216	338	1,350	2,155	3,035
Principal exports(*g*)—									
Wool	mill. lb (*h*)	529	734	946	903	938	1,036	1,513	1,577
	$m f.o.b.	30	52	96	64	116	646	745	809
Wheat	'000 tons	543	1,477	2,677	3,413	598	1,685	5,442	6,406
	$m f.o.b.	5.6	19.2	57.2	38.4	9.2	110.6	284.9	361.8
Flour	'000 short tons	97	176	360	611	414	789	579	359
	$m f.o.b.	1.2	2.8	11.0	7.6	8.4	66.0	34.8	23.1
Butter	mill. lb	35	102	127	202	130	25	178	229
	$m f.o.b.	2.8	9.2	16.0	20.6	16.2	9.2	48.5	64.9
Hides and skins	$m f.o.b.	2.6	6.4	6.2	4.6	12.0	34.2	64.4	88.7
Meats	" "	5.2	8.6	11.0	12.8	28.2	71.0	179.4	279.5
Fruit(*i*)	" "	0.4	1.0	6.0	9.6	8.0	39.0	71.2	93.9
Sugar	" "	(*d*)	(*d*)	(*d*)	5.0	5.2	13.8	67.8	99.5
Gold	" "	28.6	24.0	7.0	23.8	18.4	14.0	18.0	17.1
Silver and lead(*j*)	" "	4.6	6.4	5.4	5.8	14.8	64.2	47.0	73.7
Ores and concentrates(*k*)	" "	(*d*)	74	1.6	0.4	2.6	34.0	40.4	92.5

(*a*) Year ended previous December. (*b*) Breaks in the continuity of the series occurred in 1931 and 1951. (*c*) Mine production, i.e. metal content of minerals produced. (*d*) Less than .05. (*e*) Owing to variation in classification, effective comparison is impossible. (*f*) Gross value from 1901 to 1921–22. Prior to 1922 figures are for years ended previous December. (*g*) Australian produce except gold, which includes re-exports. (*h*) In terms of greasy. (*i*) Excludes fruit juices. (*j*) Includes concentrates. (*k*) Excludes lead and silver-lead ores and concentrates. *See* footnote (*j*). (*l*) 1945–46 initial year of collection. (*m*) Year ended June 1966.

See headnotes on page 1287

	Year ended 30 June—							
	1902	1912	1922	1932	1942	1952	1962	1967
OVERSEAS TRADE—*continued*								
Principal imports—	(*a*)	(*a*)						
Vegetable foodstuffs, etc. . . . . $m f.o.b.	7.2	7.4	8.0	5.2	12.2	50.0	56.2	74.9
Apparel, etc. . . . ,, ,,	21.8	32.4	62.0	30.8	65.4	407.2	208.4	271.2
Oil, etc. . . . . ,, ,,	2.4	3.2	9.4	11.0	32.4	175.0	219.8	261.0
Metals, etc. . . . ,, ,,	15.6	28.0	45.6	14.8	143.6	786.8	630.6	1,308.3
Rubber . . . . ,, ,,	1.0	2.8	3.4	1.6	6.4	68.0	35.6	56.0
Paper, etc. . . . ,, ,,	3.2	5.2	8.8	8.8	8.6	137.6	115.8	162.5
TRANSPORT AND COMMUNICATION—	(*a*)	(*a*)						
Shipping—								(*l*)
Overseas vessels entrances and clearances . . No.	4,028	4,174	3,111	3,057	2,544	4,136	7,210	7,958
Overseas vessels entrances and clearances . mill. tons	6.5	10.0	9.1	11.4	10.8	18.2	37.7	46.4
Overseas cargo—								
Discharged mill. tons(*b*)	n.a.	n.a.	2.4	3.0	5.5	14.4	20.3	28.3
Shipped . . . ,, ,, (*b*)	n.a.	n.a.	5.8	6.7	4.2	5.7	18.7	23.8
Interstate vessels, entrances and clearances . . No.	n.a.	9,605	9,782	7,957	9,100	7,524	10,127	11,004
Interstate vessels, entrances and clearances . mill. tons	n.a.	13.1	12.8	11.1	12.9	15.8	19.7	30.4
Interstate cargo shipped mill. tons(*b*)	n.a.	n.a.	5.5	4.0	10.0	9.0	14.8	17.7
Government railways—	(*c*)	(*c*)						
Route-miles(*d*) . . . '000	12.8	16.8	23.5	27.0	27.2	26.8	25.6	25.0
Passenger-journeys . . mill.	115	228	335	303	475	501	461	460
Goods and livestock carried mill. tons	15.5	25.5	31.5	26.1	38.9	44.3	55.6	64.3
Train-miles run . . . mill.	38.2	55.2	56.1	63.8	88.5	93.4	92.6	94.3
Tramways and omnibuses—								
Passenger-journeys—								
Trams and trolley-buses . mill.	n.a.	360	569	589	874	663	265	209
Omnibuses(*m*) . . ,,	n.a.	n.a.	n.a.	n.a.	193	356	453	444
Motor vehicles on the register(*d*)—								
Cars . . . . '000	..	n.a.	102	420	451	1,026	*n* 2,303	*n* 2,972
Commercial vehicles . . ,,	..	n.a.	102	96	251	585	*o* 830	*o* 876
Civil aviation(*e*)—								
Plane-miles flown .. . mill.	..	..	..	2.5	7.8	41.8	41.2	55.0
Passengers carried . . '000	..	..	..	57	152	1,829	2,666	4,158
Passenger-miles . . . mill.	..	..	..	n.a.	76	722	1,119	1,831
Freight carried '000 tons(*f*)	..	..	..	0.1	1.2	57.5	57.2	76.1
Freight carried mill. ton-miles(*f*)	..	..	..	n.a.	0.9	26.7	26.1	37.6
Postal—	(*a*)	(*a*)						
Postal matter dealt with(*g*) mill. articles	365	680	778	887	1,124	1,482	2,101	2,556
Telegrams and cablegrams . mill.	9.9	13.3	16.8	13.9	26.1	29.8	21.6	25.0
Telephones—								
Instruments . . . '000	29	103	259	485	739	1,301	2,383	2,978
Lines . . . . ,,	25	85	196	364	531	928	*p* 1,719	*p* 2,120
Calls—trunk . . . mill.	n.a.	n.a.	14.0	28.9	45.3	69.4	76.5	116.6
local . . ,,	n.a.	n.a.	221	369	664	968	1,650	2,103
Broadcast listeners' licences(*d*) '000	..	..	(*h*) 36	369	1,320	1,961	2,220	2,526
Television viewers' licences(*d*) '000	..	..	..		..	..	1,424	2,226
Combined listeners' and viewers' licences(*d*) . . . '000	..	..	..	..	..	..	..	*q* 1,847
PUBLIC FINANCE—								
Commonwealth—								
Consolidated revenue fund—	(*c*)	(*c*)						(*l*)
Revenue . . . . $m	22	42	128	144	420	2,034	3,283	4,879
Expenditure . . . . ,,	8	30	128	144	420	2,034	3,283	4,879
Net loan fund expenditure(*i*) ,,	..	2	10	8	426	110	182	163
Taxation collections . . ,,	18	32	100	108	360	1,868	2,833	4,185
State—								
Consolidated revenue fund—								(*l*)
Revenue . . . . $m	56	82	170	200	304	776	1,609	2,095
Expenditure . . . . ,,	58	82	174	242	298	784	1,617	2,120
Net loan expenditure(*i*) . ,	18	32	68	12	16	396	396	496
Taxation collections . . ,,	6	10	36	66	114	126	355	539
Government securities on issue(*j*)—					(*k*)	(*k*)	(*k*)	(*k*)
Commonwealth . . $m	..	12	708	638	1,340	3,838	3,119	3,275
State . . . . . ,,	426	558	1,038	1,578	2,038	2,992	5,963	7,934
Total . . . . . ,,	426	570	1,746	2,216	3,378	6.830	9,082	11,209
Overseas . . . . . ,,	n.a.	388	824	1,044	1,312	1,112	1,424	1,532
In Australia . . . . ,,	n.a.	182	922	1,172	2,066	5,718	7,658	9,677

(*a*) Year ended previous December. (*b*) Tons weight plus tons measurement. (*c*) Year ended 30 June. (*d*) At end of period. (*e*) Regular internal services. (*f*) In terms of short tons (2,000 lb.). (*g*) Letters, postcards, letter-cards, newspapers, packets, parcels, and registered articles. (*h*) Year 1923–24. (*i*) Loan expenditure on works, services, etc. (*j*) At 30 June. (*k*) Expressed in Australian currency equivalents at ruling rates of exchange. (*l*) 1965–66. (*m*) Government and municipal only. (*n*) Cars and station wagons. (*o*) Utilities vans, trucks, etc. (*p*) Services in operation. (*q*) Included in two figures above.

See headnotes on page 1287

		Year ended 30 June—							
		1902	1912	1922	1932	1942	1952	1962	1967
PRIVATE FINANCE—									
Commonwealth note issue(*a*)	$m	..	16	107	103	205	605	859	937
Cheque-paying banks—									
Advances(*b*)	,,	188	238	364	522	648	1,634	2,265	*a* 3,548
Deposits(*b*)	,,	186	300	578	638	962	2,706	3,883	*a* 5,614
Bank clearings(*c*)	,,	676	1,324	3,404	3,162	5,656	24,320	50,216	91,203
Savings bank deposits(*d*)	,,	62	118	308	396	548	1,784	3,470	5,765
Life insurance(*c*)(*e*)—									
Ordinary—									(*j*)
Policies	'000	414	484	730	871	1,340	2,554	4,201	4,705
Sum assured	$m	216	218	362	570	926	2,424	8,743	14,057
Industrial—									
Policies	'000	236	467	973	1,550	2,780	3,843	3,199	2,755
Sum assured	$m	10	20	60	134	254	508	707	871
Total—									
Policies	'000	650	951	1,703	2,421	4,120	6,397	7,400	7,460
Sum assured	$m	226	238	422	704	1,180	2,932	9,450	14,928
SOCIAL STATISTICS—									
Age and invalid pensions—									
Pensioners	'000(*d*)	..	90	144	256	336	420	691	763
Amount paid	$m	..	4.4	10.8	22.2	38.6	119.6	360.5	481.8
Child endowment—									
Children endowed	'000(*d*)	..	..	..	..	910	2,518	3,420	3,835
Endowment paid	$m	..	..	..	..	22.6	93.2	132.8	199.3
Total Commonwealth social and health services(*f*)	$m	..	4.4	12.2	23.0	61.8	275.2	730.4	1,031.1
War pensions	'000(*d*)	..	..	225	274	220	525	670	632
	$m	..	..	14.0	14.8	15.0	63.6	134.8	161.7
Service pensions	'000(*d*)	..	..	..	..	14	17	58	67
	$m	..	..	..	..	1.2	3.6	19.4	29.1
Education(*c*)—									
Government schools—									(*l*)
Schools	'000	7.0	8.0	9.4	10.1	9.5	7.6	7.9	7.8
Staff (full-time)	,,	14.5	17.0	26.1	33.8	32.1	36.7	60.0	75.9
Students	,,	638	639	819	937	887	1,013	1,664	1,921
Non-Government schools—									(*l*)
Schools	'000	2.5	1.9	1.7	1.8	1.9	1.9	2.1	2.2
Staff (full-time)	,,	8.3	7.8	8.8	10.0	11.4	13.3	18.1	18.6
Students	,,	149	161	199	221	257	326	527	583
Universities—									
Number		4	5	6	6	8	10	10	14
Staff(*g*)		n.a.	249	482	703	1,416	3,132	3,396	5,957
Students	'000	1.8	3.4	8.0	9.8	13.9	31.7	57.7	95.3
Public hospitals—		(*c*)	(*c*)	(*c*)	(*c*)				(*k*)
Number		285	355	404	513	566	675	739	753
Staff—medical	'000	n.a.	1.1	1.5	3.2	3.9	6.9	10.5	11.9
nursing	,,	n.a.	5.1	6.8	9.3	15.4	24.6	39.1	43.6
In-patients, cases treated	,,	(*i*) 91	134	215	371	595	896	1,278	*h* 1,406
POLICE AND PRISONS—		(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*k*)
Police	'000	5.8	6.4	6.9	8.6	9.7	12.3	15.9	18.3
Prisons		n.a.	104	91	95	70	69	75	74
Prisoners	'000	4.3	3.1	2.9	4.2	3.2	4.8	7.2	7.3

(*a*) At the end of June. (*b*) Figures are for the June quarter. (*c*) Year ended previous December. (*d*) At 30 June. (*e*) Existing business in Australia. (*f*) Excludes war and service pensions. (*g*) Teaching and research staff. Includes part-time till 1952, then full-time only. (*h*) Year ended 30 June 1965. (*i*) Approximate. (*j*) Year ended December 1965. (*k*) At 30 June 1965. (*l*) August 1966.

APPENDIX

Some recent information which has come to hand since the various chapters were sent to press is given in summarised form in the following pages, but for later statistics on subjects dealt with in chapters reference should in general be made to other publications issued by this Bureau, e.g. the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, the *Digest of Current Economic Statistics*, and the various mimeographed statements issued on particular subjects (*see* Publications issued by the Commonwealth Statistician, pages 1221–5 of the chapter Miscellaneous).

CHAPTER 3. GENERAL GOVERNMENT

Parliamentary government

Commonwealth Ministries, page 57

Following the resignation of the Rt Hon. C. F. Adermann as Minister for Primary Industry the Hon. J. D. Anthony was appointed to that portfolio as from 16 October 1967. The Hon. P. J. Nixon was appointed to fill the resulting vacancy as Minister for the Interior.

State Ministries, page 58

Victoria. Following the 1967 election the ministry was reconstituted. The new ministry, which took office on 9 May 1967 is as follows.

Premier and Treasurer—
The Hon. Sir Henry Bolte, K.C.M.G., M.P.

Chief Secretary—
The Hon. A. G. Rylah, C.M.G., E.D., M.P.

Minister of Agriculture—
The Hon. G. L. Chandler, C.M.G., M.L.C.

Minister of Education—
The Hon. L. H. S. Thompson, M.L.C.

Attorney-General and Minister of Immigration—
The Hon. G. O. Reid, M.P.

Minister of Public Works—
The Hon. M. V. Porter, M.P.

Minister of Housing and Minister of Forests—
The Hon. E. R. Meagher, M.B.E., E.D., M.P.

Minister for Local Government—
The Hon. R. J. Hamer, E.D., M.L.C.

Minister for Fuel and Power and Minister of Mines—
The Hon. J. C. M. Balfour, M.P.

Minister of Labour and Industry—
The Hon. J. F. Rossiter, M.P.

Minister of Transport—
The Hon. V. F. Wilcox, M.P.

Minister of Health—
The Hon. V. O. Dickie, M.L.C.

Minister of State Development—
The Hon. J. W. Manson, M.P.

Minister of Lands, Minister of Soldier Settlement and Minister for Conservation—
The Hon. Sir William McDonald, M.P.

Minister of Water Supply—
The Hon. W. A. Borthwick, M.P.

South Australia. The Hon. F. H. Walsh, M.P., resigned as Premier on 1 June 1967, and the Hon. D. A. Dunstan succeeded him in that office. The reconstituted ministry was as follows.

Premier, Treasurer, Attorney-General and Minister of Housing—
The Hon. D. A. Dunstan, Q.C., M.P.

Chief Secretary and Minister of Health—
The Hon. A. J. Shard, M.L.C.

Minister of Works and Minister of Marine—
The Hon. C. D. Hutchens, M.P.

Minister of Social Welfare—
The Hon. F. H. Walsh, M.P.

Minister of Education and Minister of Aboriginal Affairs—
The Hon. R. R. Loveday, M.P.

Minister of Local Government, Minister of Roads and Minister of Mines—
The Hon. S. C. Bevan, M.L.C.

Minister of Labour and Industry and Minister of Transport—
The Hon. A. F. Kneebone, M.L.C.

Minister of Agriculture and Minister of Forests—
The Hon. G. A. Bywaters, M.P.

Minister of Lands, Minister of Repatriation, Minister of Irrigation and Minister of Immigration—
The Hon. J. D. Corcoran, M.P.

New South Wales. As from 27 June 1967 the Honourable W. C. Fife, formerly Assistant Minister for Education, took over the portfolio of Minister for Mines from the Honourable T. L. Lewis, who thus became solely Minister for Lands.

Queensland. On 9 June 1967 the Honourable A. T. Dewar resigned as Minister for Industrial Development. The Honourable F. A. Campbell was appointed to fill the vacancy on 20 June 1967.

Leaders of the Opposition, page 60

Following the resignations of the Leaders of the Opposition in the Commonwealth, Victorian and Western Australian Parliaments Messrs E. G. Whitlam, Q.C., M.P., A. C. Holding, M.P., and J. T. Tonkin, M.L.A., were appointed, respectively, to fill the vacancies.

Parliaments and elections

Commonwealth Parliaments and elections, page 63

Members of the Senate. Following the death of Senator D. C. Hannaford, Senator C. L. Laucke was sworn in on 3 November 1967 to fill the vacancy to the end of June 1968.

HOUSE OF REPRESENTATIVES ELECTIONS: 26 NOVEMBER 1966

(Summary of votes cast for political parties in each State and Territory)

State or Territory	Electors enrolled	Votes recorded						
		Liberal Party of Australia	Australian Country Party	Australian Labor Party	Australian Democratic Labor Party	Others	Informal	Total
New South Wales	2,308,775	862,407	226,355	862,631	96,102	69,981	69,340	2,186,816
Victoria	1,702,864	622,708	130,468	548,743	197,026	66,619	60,779	1,626,343
Queensland	900,492	253,663	165,358	354,674	63,175	5,365	15,595	857,830
South Australia	585,465	296,923	. .	222,828	19,281	8,089	16,220	563,341
Western Australia	433,097	160,894	32,524	168,257	28,502	2,875	16,518	409,570
Tasmania	197,666	78,684	. .	96,246	11,132	289	2,849	189,200
Northern Territory	17,395	. .	7,221	6,734	. .	. .	500	14,455
Australian Capital Territory	48,127	16,685	. .	22,721	2,193	2,396	777	44,772
Australia	**6,193,881**	**2,291,964**	**561,926**	**2,282,834**	**417,411**	**155,614**	**182,578**	**5,892,327**

Elections to fill casual vacancies in the Senate in accordance with section 15 of the Constitution were held simultaneously with the election for the House of Representatives. Vacancies were as follows: New South Wales, 1; Victoria, 2; Queensland, 1; and Western Australia, 2. As a result of this voting three Liberal Party candidates were elected (one each in New South Wales, Queensland and Western Australia), one Country Party (in Victoria) and two Labor Party (one each in Victoria and Western Australia).

State elections, page 67

Victoria. Elections for both Houses of Parliament were held in Victoria on 29 April 1967. The numbers enrolled and votes cast at this election were as follows.

VICTORIAN ELECTIONS, 1967

	Legislative Council	Legislative Assembly
Electors enrolled	1,723,981	1,723,981
Electors who voted	1,625,371	1,625,239
Percentage of electors who voted	94.28	94.27

In accordance with the *Electoral Provinces and Districts Act* 1965, the number of members elected were, for the first time, thirty-five for the Legislative Council, and seventy-three for the Legislative Assembly.

Commonwealth referendums, page 66

Two referendums on proposals for the amendment of the Constitution were submitted to electors for approval on 27 May 1967. The first, a proposal to alter the Constitution so that the number of members of the House of Representatives might be increased without necessarily increasing the number of Senators, was defeated, a majority in favour of the proposed law having been obtained in one State only, New South Wales. The other, a proposal to alter the Constitution so as to omit from paragraph xxvi. of section 51 the words 'other than the aboriginal race in any State' and to repeal section 127 so that Aboriginals are to be counted in reckoning the population, was approved, a majority in favour of the proposed law having been obtained in each State. *See* page 66 for requirements for alteration of the Constitution.

A summary of the results of the voting on each of these proposals follows.

CONSTITUTION ALTERATION (PARLIAMENT) REFERENDUM, 27 MAY 1967

State	Electors enrolled	Result of scrutiny			
		Number of votes in favour of proposed law	Number of votes not in favour of proposed law	Informal	Total
New South Wales	2,315,828	1,087,694	1,044,458	34,355	2,166,507
Victoria	1,734,476	496,826	1,112,506	21,262	1,630,594
Queensland	904,808	370,200	468,673	9,855	848,728
South Australia	590,275	186,344	363,120	11,380	560,844
Western Australia	437,609	114,841	280,523	10,302	405,666
Tasmania	199,589	42,764	142,660	3,821	189,245
Total	**6,182,585**	**2,298,669**	**3,411,940**	**90,975**	**5,801,584**

CONSTITUTION ALTERATION (ABORIGINALS) REFERENDUM, 27 MAY 1967

State	Electors enrolled	Result of scrutiny			
		Number of votes in favour of proposed law	Number of votes not in favour of proposed law	Informal	Total
New South Wales	2,315,828	1,949,036	182,010	35,461	2,166,507
Victoria	1,734,476	1,525,026	85,611	19,957	1,630,594
Queensland	904,808	748,612	90,587	9,529	848,728
South Australia	590,275	473,440	75,383	12,021	560,844
Western Australia	437,609	319,823	75,282	10,561	405,666
Tasmania	199,589	167,176	18,134	3,935	189,245
Total	**6,182,585**	**5,183,113**	**527,007**	**91,464**	**5,801,584**

The Parliaments of the States and State elections, page 67

A referendum held on 29 April 1967 in nineteen northern electorates of New South Wales on the proposal to form a new State of New England resulted in a majority against the proposal.

CHAPTER 7. THE TERRITORIES OF AUSTRALIA

Trust Territory of Nauru, page 155

A statement by the Minister for Territories in the House of Representatives on 24 October 1967 outlined proposals made by the Nauruan delegation (during discussions on the constitutional future of Nauru, between representatives of the Nauruan people and of the Governments of Britain, New Zealand and Australia) seeking the agreement of the partner Governments to Nauru's becoming an independent State on 31 January 1968· the alternative arrangements put forward for consideration by the three Governments; and the reaction thereto of the Nauruan delegation. The statement continued: the partner Governments would respect the views put forward by the Nauruan delegation and were agreeable to meet its request for full and unqualified independence; the date on which Nauru would become independent required consideration in view of what was necessary to enable the change to be made; and the three Governments had agreed to take steps to seek from the United Nations General Assembly a resolution for the termination of the Trusteeship agreement upon independence being achieved.

A Bill for the *Nauru Independence Act* 1967 was introduced in the House of Representatives on 26 October 1967 so that on and after Nauru Independence Day Australian law would cease to apply. The Act was assented to on 10 November 1967.

CHAPTER 8. POPULATION

General characteristics of the population, page 181

Particulars of characteristics from June 1966 census results are being published in mimeograph form in Census Bulletins for each State and Territory and for Australia. Summarised information is shown on pages 1297–1305 of this Appendix

CHAPTER 11. LABOUR, WAGES AND PRICES

Surveys of wage rates, earnings and hours

Surveys of Weekly Earnings and Hours, page 327

A Survey of Weekly Earnings and Hours was conducted in October 1966, and the results were published in a mimeographed bulletin issued on 3 May 1967.

Basic wages in Australia

National Wage Cases of 1967, page 344

Two benches of the Commonwealth Conciliation and Arbitration Commission commenced hearing on 4 April 1967 applications by trade unions and employers. Three matters were before the Commission, namely, an application by unions for an increased basic wage, an application by employers for a total wage, and an application by unions for an increase in margins. The last two matters were part heard (*see* Basic Wage, Margins and Total Wage Cases of 1966, pages 343–4) when the unions' basic wage application was made and were listed before the Commission on the application of the employers so that all three might be considered together.

The Presidential bench dealing with the basic wage application comprised Kirby *C.J.*, Gallagher and Moore *JJ.* and the reference bench dealing with the remaining matters comprised Gallagher and Moore *JJ.* and Commissioner Winter.

The unanimous decisions of the two benches were made in the form of a pronouncement by the President of the Commission (Kirby *C.J.*) on 5 June 1967. The pronouncement concluded with the following orders.

'Each bench will make formal orders in these proceedings. The Commission in Presidential Session will formally dismiss the unions' application for an increase in the basic wage. On behalf of the reference bench I announce the elimination of basic wages and margins and the introduction of total wages. The total wages will be arrived at by adding an amount of $1 per week to the weekly award wages of all adult males and females, but no employee is to receive the increase twice. By virtue of existing award provisions male and female juniors including apprentices will receive proportionate increases. The increase will also be added to the minimum standard for adult males introduced in July 1966. The necessary variation will come into operation from the beginning of the first pay period to commence on or after Saturday, 1 July 1967 . . . '

State basic wages, etc., pages 346-50

Subsequent to increases in Commonwealth awards as a result of the National Wage Cases of 1967 (*see* above), award wages in State awards, etc. were also increased as follows.

New South Wales. Award rates of wages and salaries for adult males and adult females were increased by the addition of a fixed loading of $1 per week described as 'July 1967 economic loading' to take effect from the beginning of the first pay-period to commence on or after 1 July 1967.

Victoria. Wage rates for adult males and adult females in most Wages Board determinations were increased by $1 per week from 1 July 1967. Basic wages and margins were deleted from determinations and wage rates expressed as total wages.

Queensland. Award rates of pay for both adult males and adult females were increased by $1 per week to operate from 3 July 1967.

South Australia. The 'living wages' for both adult males and adult females were increased by $1 per week to operate from 3 July 1967.

Western Australia. The decision of the Industrial Commission was that the *minimum* weekly wage payable to adult male workers under certain awards be increased from $36.55 to $37.55; 'that the wage rates for adult workers not in receipt of the "minimum wage" be increased by 60 cents per week; and that other wage rates be adjusted as if the basic wage for males and the basic wage for females had been increased by that amount.' These increases were declared to operate from the beginning of the first pay-period commencing on or after 1 July 1967.

Tasmania. The chairman of Tasmanian Wages Boards announced on 4 July that a $1 per week increase in basic wage rates for adult males and adult females would be incorporated in Wages Boards determinations beginning in July 1967.

CHAPTER 16. PUBLIC HEALTH

Public health legislation and administration

Australian Capital Territory, page 550

An A.C.T. Hospital Advisory Committee has been established consisting of five members appointed by the Minister for Health. The functions of the Committee are to advise the Minister for Health with regard to the future development of hospitals in the A.C.T. for all types of patients; the co-ordination of the activities of such hospitals and related services; and measures to ensure efficient and economic utilisation of such services.

The Committee has been set up in view of the development in the A.C.T. of a multiple hospital system. For this reason also the composition of the Canberra Community Hospital Board has been changed to a Management Board of five members nominated by the Minister for Health. The change became effective from 1 October 1967. The functions of the new Management Board, subject to the directions of the Minister, are to provide general oversight of the management of the affairs of the hospital; provide facilities for the treatment of patients as required; appoint such staff as is necessary; submit for approval an annual financial and staff budget and operate the hospital within the approved budget; and make by-laws for the conduct of the administration of the hospital.

CHAPTER 19. PRIVATE FINANCE

Rates of exchange, page 680

On 18 November 1967 devaluation of the £1 sterling by 14.3 per cent (from $A2.51 to $A2.14) was announced. Subsequently devaluations were announced in the currencies of the following countries: New Zealand, Ireland, Denmark, Spain, Israel, Hong Kong, Fiji, Malta, Guyana, Bermuda, Malawi, Cyprus, Gambia, Mauritius, and Barbados.

Finance companies, page 716

The statistics of finance companies are still being revised at the time of this Year Book going for press, and the revised information will be published in a mimeographed bulletin, to be issued as soon as possible. Current monthly information is available in the mimeographed statement *Finance Companies.*

CHAPTER 20. PUBLIC FINANCE

TAXES ON INCOME

Income tax assessments, page 831

COMMONWEALTH INCOME TAX ASSESSMENTS(a): RESIDENT INDIVIDUALS, BY GRADE OF INCOME AND BY STATE, ETC. OF ASSESSMENT

(Income derived in the year 1964-65)

Grade of actual income(b) and State or Territory of assessment	Taxpayers			Actual income (b)	Taxable income(c)			Net tax assessed
	Males	Females	Total		Salary and wages	Other income	Total	
$ $	No.	No.	No.	$'000	$'000	$'000	$'000	$'000
417– 599	43,649	93,473	137,122	70,787	56,292	11,527	67,819	1,296
600– 799	63,655	126,578	190,233	133,472	103,223	20,547	123,770	3,872
800– 999	78,131	143,485	221,616	199,432	153,104	28,876	181,980	7,878
1,000– 1,199	89,367	158,516	247,883	272,179	202,113	42,626	244,740	13,242
1,200– 1,399	95,073	164,177	259,250	337,458	248,365	51,714	300,079	19,403
1,400– 1,599	101,687	177,177	278,864	417,922	308,360	60,390	368,750	27,264
1,600– 1,799	117,760	148,910	266,670	453,079	324,455	67,948	392,403	32,210
1,800– 1,999	162,196	108,662	270,858	514,684	355,573	74,936	430,509	38,126
2,000– 2,199	211,375	80 157	291,532	611,888	415,456	80,909	496,365	47,004
2,200– 2,399	242,129	51,442	293,571	675,161	446,636	82,466	529,102	53,046
2,400– 2,599	253,070	37,155	290,225	725,284	477,625	84,539	562,164	59,929
2,600– 2,799	248,435	26,957	275,392	742,708	488,937	83,198	572,135	64,662
2,800– 2,999	227,333	20,911	248,244	719,219	468,084	83,039	551,123	65,743
3,000– 3,999	705,145	60,127	765,272	2,617,282	1,639,374	364,611	2,003,985	273,694
4,000– 5,999	361,126	42,347	403,473	1,907,246	999,549	479,392	1,478,942	260,996
6,000– 7,999	86,148	13,786	99,934	681,832	266,127	282,020	548,147	126,301
8,000– 9,999	34,481	5,997	40.478	358 987	113,212	184,844	298,055	82,261
10,000–19,999	37,372	6,107	43,479	565,093	129,869	356,021	485,889	174,880
20,000–29,999	4,201	693	4,894	116,082	21,518	81,884	103,402	48,492
30,000–39,999	942	184	1,126	38,400	6,565	28,486	35,051	18,265
40,000–59,999	523	101	624	29,656	5,351	21,003	26,354	14,672
60,000–99,999	171	29	200	14,676	2,304	10,434	12,738	7,541
100,000 and over	59	12	71	11,881	859	9,523	10,383	5,955
Central Office	8,680	6,258	14,938	101,108	21,128	65,422	86,550	28,518
New South Wales	1,175,129	552,210	1,727,339	4,599,334	2,848,581	851,822	3,700,403	545,284
Victoria	896,798	454,428	1,351,226	3,598,808	2 154,686	778,514	2,933,201	437,807
Queensland	427,611	171,949	599,560	1,518,008	818,970	370,750	1,189,719	168,242
South Australia	304,143	136,565	440,708	1,123,218	648,645	258,297	906,942	125,822
Western Australia	218,437	89,984	308,421	771,277	432,127	181,037	613,164	85,042
Tasmania	98,236	39,420	137,656	342,500	201,984	65,775	267,758	35,311
Northern Territory	8,639	3,045	11,684	36,791	20,746	4,368	25,114	3,606
Australian Capital Territory	26,355	13,124	39,479	123,363	86,086	14,949	101,035	17,099
Total residents	**3,164,028**	**1,466,983**	**4,631,011**	**12,214,408**	**7,232,952**	**2,590,934**	**9,823,886**	**1,446,732**
Total non-residents	*697*	*317*	*1,014*	*5,063*	*3,256*	*1,725*	*4,982*	*1,154*
Total residents and non-residents	*3,164,725*	*1,467,300*	*4,632,025*	*12,219,471*	*7,236,208*	*2,592,659*	*9,828,868*	*1,447,886*

(a) Assessments in respect of 1964–65 incomes issued to 30 September 1966. Assessments issued after that date are not included. (b) Actual income is defined briefly as 'Gross income including exempt income less expenditure incurred in gaining that income'. (c) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

COMMONWEALTH INCOME TAX ASSESSMENTS(*a*): RESIDENT AND NON-RESIDENT COMPANIES, BY GRADE OF INCOME AND STATE, ETC. OF ASSESSMENT

(Income derived in the year 1964-65)

Grade of taxable income(*c*) and State or Territory of assessment	Taxable				Non-taxable		
	Companies	Actual income (*b*)	Taxable income (*c*)	Net tax assessed (*d*)	Companies	Taxable income (*c*)(*e*)	
$ $	No.	$'000	$'000	$'000	No.	$'000	
Loss for year	..	..	..	..	23,305	(*f*) 159,449	
Nil	..	..	..	..	13,162	..	
1– 1,999	20,953	34,535	14,627	3,946	2,948	2 176	
2,000– 9,999	25,576	163,920	139,032	36,298	3,125	15,660	
10,000– 19,999	11,135	167,559	154,410	44,248	949	13,180	
20,000– 39,999	5,948	178,982	165,435	51,507	544	15,193	
40,000– 99,999	3,918	259,644	239,776	77,487	493	31,490	
100,000– 199,999	1,531	228,574	215,003	68,663	219	30,479	
200,000– 399,999	844	253,374	232,075	74.698	131	36,357	
400,000– 999,999	521	337,644	317,994	98,360	61	33,846	
1,000,000–1,999,999	149	222,663	209,447	67,456	17	21,440	
2,000,000 and over	153	1,134,040	840,595	264,436	5	23,996	
							Loss(*g*)
Central Office	3,611	1,427,188	1,074,496	356,496	1,317	20,548	29,123
New South Wales	28,236	605,103	564,092	165,102	18,483	67,920	54,914
Victoria	20,219	471,472	444,964	126,120	12,264	73,730	27,831
Queensland	6,106	161,052	151,145	49,688	4,023	16,005	15,121
South Australia	6,686	141,347	132,569	42,954	3,988	12,479	5,677
Western Australia	2,697	82,836	74,503	25,140	1,902	2,630	6,613
Tasmania	1,355	34,495	32,755	10,251	920	823	1,777
Northern Territory	221	5,796	4,706	1,436	140	276	977
Australian Capital Territory	1,597	51,667	49,164	9,912	1,922	29,406	17,416
Total	**70,728**	**2,980,956**	**2,528,395**	**787,099**	**44,959**	**223,817**	**159,449**

(*a*) Assessments in respect of 1964–65 incomes issued to 31 December 1966. Assessments issued after that date are not included. (*b*) Actual income is defined briefly as 'Gross income including exempt income less expenditure incurred in gaining that income'. (*c*) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (*d*) Excludes additional tax levied on the undistributed income of private companies. (*e*) Net tax assessed is nil because of rebates. (*f*) This figure is not included in the total shown for taxable income. (*g*) Not included in figures shown in adjoining column.

CHAPTER 8. POPULATION

Population recorded at censuses, page 171

The following table shows the final totals recorded for each State and Territory at the Census of 30 June 1966.

POPULATION, BY SEX: STATES AND TERRITORIES, CENSUS 30 JUNE 1966

State or Territory	Males	Females	Persons
New South Wales	2,124,463	2,109,360	4,233,823
Victoria	1,613,904	1,605,622	3,219,526
Queensland	843,897	819,788	1,663,685
South Australia	548,530	543,345	1,091,875
Western Australia	426,691	409,982	836,673
Tasmania	187,380	184,036	371,416
Northern Territory	21,508	15,925	37,433
Australian Capital Territory	49,977	46,036	96,013
Australia	**5,816,350**	**5,734,094**	**11,550,444**

The figures above and in the following section are exclusive of particulars of full-blood Aborigines.

General characteristics of the population, page 181

The following tables show, by sex and by State and Territory, the numbers of persons recorded at the census of 30 June 1966 according to the following characteristics: age; marital status; birthplace; period of residence of overseas-born; nationality; religious denomination; occupational status; occupation; and industry. The figures are preliminary, subject to amendment.

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966
MALES

AGE (GROUPED AGES)

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age last birthday (years)—									
0– 4	206,644	164,283	87,400	55,233	43,524	20,494	2,462	5,908	585,948
5– 9	209,902	164,216	88,546	57,933	45,791	21,337	2,045	5,767	595,537
10–14	195,459	153,220	82,926	55,045	44,022	19,561	1,407	4,610	556,250
15–19	193,411	147,914	77,905	52,779	40,714	17,672	1,386	5,065	536,846
20–24	162,734	120,447	62,831	39,564	31,032	12,957	2,564	4,579	436,708
25–29	142,848	107,745	53,016	33,684	28,135	11,980	2,627	4,301	384,336
30–34	132,878	100,508	48,339	31,879	25,488	10,936	1,925	3,701	355,654
35–39	148,178	112,493	53,150	37,644	28,204	11,984	1,943	3,865	397,461
40–44	147,939	111,196	54,096	38,248	27,700	12,000	1,541	3,815	396,535
45–49	129,423	94,051	48,902	33,167	22,907	10,661	1,054	2,868	343,033
50–54	121,365	88,808	46,696	30,973	22,747	10,321	874	2,026	323,810
55–59	102,843	76,214	40,792	24,961	20,634	8,543	658	1,455	276,100
60–64	78,580	60,411	32,034	19,221	17,462	6,571	463	848	215,590
65–69	58,797	44,600	26,341	14,023	12,023	4,759	309	524	161,376
70–74	42,383	32,010	18,727	10,633	7,513	3,329	145	344	115,084
75–79	29,984	21,117	13,097	7,761	5,020	2,404	65	186	79,634
80–84	14,619	9,923	6,221	3,988	2,481	1,235	26	75	38,568
85 and over	6,476	4,748	2,878	1,794	1,294	636	14	40	17,880
Total	**2,124,463**	**1,613,904**	**843,897**	**548,530**	**426,691**	**187,380**	**21,508**	**49,977**	**5,816,350**

MARITAL STATUS

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Marital status									
Never married—									
Under 15 years of age	612,005	481,719	258,872	168,211	133,337	61,392	5,914	16,285	1,737,735
15 years of age and over	457,700	344,297	187,210	110,592	91,188	37,075	6,525	11,624	1,246,211
Total, never married	*1,069,705*	*826,016*	*446,082*	*278,803*	*224,525*	*98,467*	*12,439*	*27,909*	*2,983,946*
Married	960,219	725,320	361,792	249,048	185,239	81,808	7,986	20,821	2,592,233
Married but permanently separated(*a*)	30,071	19,938	11,102	5,478	5,534	2,090	498	438	75,149
Divorced	17,459	9,755	5,813	4,237	3,741	1,233	310	337	42,885
Widowed	47,009	32,875	19,108	10,964	7,652	3,782	275	472	122,137
Grand total	**2,124,463**	**1,613,904**	**843,897**	**548,530**	**426,691**	**187,380**	**21,508**	**49,977**	**5,816,350**

(*a*) Legally or otherwise.

BIRTHPLACE

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Birthplace—									
Total, born in Australia	1,727,351	1,249,368	731,943	416,965	318,198	167,521	15,896	35,960	4,663,202
Total, born in Australian External Territories	1,354	475	1,233	153	133	41	33	94	3,516
New Zealand	12,534	5,738	4,139	1,080	1,431	617	211	424	26,174
Total, born in Australasia	*1,741,239*	*1,255,581*	*737,315*	*418,198*	*319,762*	*168,179*	*16,140*	*36,478*	*4,692,892*
Europe—									
United Kingdom and Ireland	159,308	124,415	55,938	62,756	54,932	9,911	1,939	5,229	474,428
Austria	5,291	4,508	702	1,293	621	290	120	294	13,119
Belgium	488	437	183	215	115	32	19	40	1,529
Germany	18,202	18,982	4,863	8,189	2,939	1,137	420	1,067	55,799
Greece	25,792	32,884	2,546	7,834	3,113	451	798	518	73,936
Italy	41,430	61,091	11,972	17,130	16,005	918	472	1,120	150,138
Malta	12,919	14,804	1,315	1,276	476	56	19	163	31,028
Netherlands	15,273	19,092	5,593	6,703	5,755	1,809	177	787	55,189
Poland	11,197	13,986	2,394	4,519	2,775	1,064	70	491	36,496
Spain	2,384	1,727	987	512	414	42	16	197	6,279
Yugoslavia	17,515	14,574	2,246	4,024	4,641	588	155	830	44,573
Other	32,159	24,410	7,746	9,811	4,866	1,422	498	1,509	82,421
Total, born in Europe	*341,958*	*330,910*	*96,485*	*124,262*	*96,652*	*17,720*	*4,703*	*12,245*	*1,024,935*
Asia—									
Ceylon, India, Pakistan	3,323	3,749	1,030	976	2,359	170	63	157	11,827
Other	21,575	11,937	4,248	2,629	3,688	651	348	499	45,575
Total, born in Asia	*24,898*	*15,686*	*5,278*	*3,605*	*6,047*	*821*	*411*	*656*	*57,402*

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966
FEMALES

AGE (GROUPED AGES)

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age last birthday (years)—									
0– 4	196,456	156,298	83,251	52,255	41,286	19,609	2,374	5,665	557,194
5– 9	200,318	156,371	83,892	55,704	43,428	20,348	1,912	5,384	567,357
10–14	187,027	145,505	78,602	52,295	42,129	18,807	1,356	4,474	530,195
15–19	182,904	141.802	74,820	50,428	38,580	17,210	1,155	4,478	511,377
20–24	155,196	117,449	58,843	38,424	28,476	12,703	1,938	4,203	417,232
25–29	135,261	101,986	49,324	32,388	25,912	11,304	1,683	3,871	361,729
30–34	123,340	93,874	45,546	30,219	23,930	10,223	1,254	3,313	331,699
35–39	137,283	103,804	49,769	34,800	25,986	10,983	1,074	3.400	367,099
40–44	141,860	106,657	50,690	36,640	25,535	11,522	900	3,409	377,213
45–49	127,512	92,074	47,725	31,769	22,142	10,323	712	2,382	334,639
50–54	120,698	88,037	45,205	29,669	22,103	9,777	535	1,800	317,824
55–59	101,483	74,603	37,883	24,517	18,848	8,003	395	1,184	266,916
60–64	82,352	62,578	31,768	19,696	15,732	6,513	278	842	219,759
65–69	73,603	55,726	29,124	17,461	12,652	5,616	190	648	195,020
70–74	60,620	46,650	23,082	15,565	9,709	4,704	95	462	160,887
75–79	45,040	33,357	16,428	11,253	6,895	3,439	46	294	116,752
80–84	24,731	18,155	8,756	6,622	3,986	1,875	20	151	64,296
85 and over	13,676	10,696	5,080	3,640	2,653	1,077	8	76	36,906
Total	**2,109,360**	**1,605,622**	**819,788**	**543,345**	**409,982**	**184,036**	**15,925**	**46,036**	**5,734,094**

MARITAL STATUS

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Marital status—									
Never married—									
Under 15 years of age	583,801	458,174	245,745	160,254	126,843	58,764	5,642	15,523	1,654,746
15 years of age and over	330.621	260,300	129,239	81,731	60,192	27,286	2,563	7,420	899,352
Total, never married	*914,422*	*718,474*	*374,984*	*241,985*	*187,035*	*86,050*	*8,205*	*22,943*	*2,554,098*
Married	954,624	722,267	361,189	248,731	183,053	81,317	6,806	20,499	2,578,486
Married but permanently separated(*a*)	35,619	24,134	12,376	6,201	5,986	2,200	293	409	87,218
Divorced	22,194	12,436	6,028	4,851	3,774	1,293	163	404	51,143
Widowed	182,501	128,311	65,211	41,577	30,134	13,176	458	1,781	463,149
Grand total	**2,109,360**	**1,605,622**	**819,788**	**543,345**	**409,982**	**184,036**	**15,925**	**46,036**	**5,734,094**

(*a*) *See* opposite page.

BIRTHPLACE

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Birthplace—									
Total, born in Australia	1,772,444	1,289,560	729,886	428,962	319,684	168,042	13,115	34,628	4,756,321
Total, born in Australian External Territories	1,356	420	876	122	115	49	20	76	3,034
New Zealand	13,437	5,945	3,469	1,108	1,237	620	144	351	26,311
Total, born in Australasia	*1,787,237*	*1,295,925*	*734,231*	*430,192*	*321,036*	*168,711*	*13,279*	*35,055*	*4,785,666*
Europe—									
United Kingdom and Ireland	145,672	114,991	50,174	59,274	49,188	9,190	1,148	4,600	434,237
Austria	4 301	3,664	462	1,126	489	167	26	200	10,435
Belgium	493	486	174	214	103	30	8	41	1,549
Germany	17,408	18,288	4,163	8,024	2,996	879	167	984	52,909
Greece	22,702	31,391	1,851	6,826	2,330	304	399	350	66,153
Italy	31,445	50,128	8,300	13,718	12,136	530	174	756	117,187
Malta	10,160	11,648	831	982	284	23	6	142	24,076
Netherlands	11,848	15,554	4,275	5,740	4,614	1,558	88	683	44,360
Poland	7,537	10,711	1,401	2,734	1,952	503	15	292	25,145
Spain	1,934	1,416	468	425	201	13	6	172	4,635
Yugoslavia	9,889	10,060	872	2,328	2,860	233	20	442	26,704
Other	25,197	18,930	4,849	6,752	3,323	815	112	1,208	61,186
Total, born in Europe	*288,586*	*287,267*	*77,820*	*108,143*	*80,476*	*14,245*	*2,169*	*9,870*	*868,576*
Asia—									
Ceylon, India, Pakistan	2,757	3,276	908	844	2,367	196	55	161	10,564
Other	15,885	8,743	3,144	1,949	2,739	341	256	364	33,421
Total, born in Asia	*18,642*	*12,019*	*4,052*	*2,793*	*5,106*	*537*	*311*	*525*	*43,985*

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966—*continued*
MALES

BIRTHPLACE—*continued*

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Africa—									
United Arab Republic	5,326	4,666	264	573	555	30	8	48	11,470
Republic of South Africa	1,840	1,245	573	371	583	136	26	54	4,828
Other	1,331	1,771	615	357	1,034	126	32	79	5,345
Total, born in Africa	*8,497*	*7,682*	*1,452*	*1,301*	*2,172*	*292*	*66*	*181*	*21,643*
America—									
Canada	1,844	1,009	725	295	489	104	64	84	4,614
United States of America	3,613	2,180	1,960	600	1,282	182	99	266	10,182
Other	775	493	286	150	196	24	14	25	1,963
Total, born in America	*6,232*	*3,682*	*2,971*	*1,045*	*1,967*	*310*	*177*	*375*	*16,759*
Pacific Islands—									
Fiji	928	171	256	73	45	47	2	28	1,550
Other	626	139	104	34	31	10	6	11	961
Total, born in Pacific Islands	*1,554*	*310*	*360*	*107*	*76*	*57*	*8*	*39*	*2,511*
Other—*At Sea*	*85*	*53*	*36*	*12*	*15*	*1*	*3*	*3*	*208*
Total, born in Australia	*1,727,351*	*1,249,368*	*731,943*	*416,965*	*318,198*	*167,521*	*15,896*	*35,960*	*4,663,202*
Total, born outside Australia	*397,112*	*364,536*	*111,954*	*131,565*	*108,493*	*19,859*	*5,612*	*14,017*	*1,153,148*
Grand total	**2,124,463**	**1,613,904**	**843,897**	**548,530**	**426,691**	**187,380**	**21,508**	**49,977**	**5,816,350**

OVERSEAS BORN, BY PERIOD OF RESIDENCE IN AUSTRALIA

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Period of residence in Australia (years)—									
Under 1 year	30,943	24,474	7,846	12,235	9,872	1,488	553	1,198	88,609
1 and under 2	22,333	20,061	5,622	10,332	5,488	965	396	783	65,980
2 „ „ 3	18,920	19.153	4,874	8,834	4,625	782	396	782	58,366
3 „ „ 4	15,277	15.352	3,484	5,961	4,565	526	260	679	46,104
4 „ „ 5	12,700	11,349	2,829	4,349	3,096	505	261	534	35,623
5 years and over	287,679	266,236	84,168	87.919	78,664	15,095	3,569	9,840	833,170
Not stated	9,260	7,911	3,131	1,935	2,183	498	177	201	25,296
Total, born outside Australia	**397,112**	**364,536**	**111,954**	**131,565**	**108,493**	**19,859**	**5,612**	**14,017**	**1,153,148**

NATIONALITY

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Nationality—									
British(*a*)—									
Country of citizenship—									
Born in Australia	1,727.351	1,249,368	731,943	416,965	318 198	167,521	15,896	35,960	4,663,202
Born outside Australia	297,513	255,273	94,489	103,460	90,411	16,345	3,801	9,971	871,263
Total, British(a)	*2,024,864*	*1,504,641*	*826,432*	*520,425*	*408,609*	*183,866*	*19,697*	*45,931*	*5,534,465*
Foreign—									
Austrian	2,655	1,941	355	554	224	152	78	192	6,151
Belgian	282	201	135	154	67	21	16	30	906
Dutch	7,863	8.655	2,623	3,548	2,148	685	76	343	25,941
German	8,728	8,529	1,748	3,085	956	467	262	487	24,262
Greek	18.468	26,104	1,042	4,994	1,500	325	574	338	53,345
Italian	22.944	37,499	3,714	9,224	6,723	550	230	748	81,632
Lebanese	2,973	605	46	68	51	..	..	4	3,747
Polish	2,477	2,838	510	934	560	257	17	191	7,784
Russian(*b*)	1,441	1,102	307	354	99	59	4	30	3,396
Spanish	2.228	1,536	691	462	336	38	13	185	5,489
U.S. American	3,106	1,790	1,706	490	1,214	143	96	232	8,777
Yugoslav	10,521	8,029	1,078	1,566	1,957	270	74	529	24,024
Stateless	3,195	2,740	549	711	388	97	43	134	7,857
Other	12,718	7,694	2,961	1,961	1,859	450	328	603	28,574
Total, foreign	*99,599*	*109,263*	*17,465*	*28,105*	*18,082*	*3,514*	*1,811*	*4,046*	*281,885*
Grand total	**2,124,463**	**1,613,904**	**843,897**	**548,530**	**426,691**	**187,380**	**21,508**	**49,977**	**5,816,350**

(*a*) For purposes of this table Irish nationality is included with British. (*b*) Includes Ukrainian.

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966—*continued*
FEMALES

BIRTHPLACE—*continued*

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Africa—									
United Arab Republic	4,874	4,238	246	593	557	22	7	34	10,571
Republic of South Africa	1,864	1,300	494	407	567	141	20	71	4,864
Other	1,141	1,500	480	308	872	121	25	80	4,527
Total, born in Africa	*7,879*	*7,038*	*1,220*	*1,308*	*1,996*	*284*	*52*	*185*	*19,962*
America—									
Canada	1,647	876	601	273	320	72	36	95	3,920
United States of America	2,742	1,600	1,321	413	781	97	59	217	7,230
Other	717	464	214	119	148	26	11	43	1,742
Total, born in America	*5,106*	*2,940*	*2,136*	*805*	*1,249*	*195*	*106*	*355*	*12,892*
Pacific Islands—									
Fiji	956	210	168	65	57	37	4	27	1,524
Other	868	171	125	27	38	20	3	16	1,268
Total, born in Pacific Islands	*1,824*	*381*	*293*	*92*	*95*	*57*	*7*	*43*	*2,792*
Other—*At sea*	*86*	*52*	*36*	*12*	*24*	*7*	*1*	*3*	*221*
Total, born in Australia	*1,772,444*	*1,289,560*	*729,886*	*428,962*	*319,684*	*168,042*	*13,115*	*34,628*	*4,756,321*
Total, born outside Australia	*336,916*	*316,062*	*89,902*	*114,383*	*90,298*	*15,994*	*2,810*	*11,408*	*977,773*
Grand total	**2,109,360**	**1,605,622**	**819,788**	**543,345**	**409,982**	**184,036**	**15,925**	**46,036**	**5,734,094**

OVERSEAS BORN, BY PERIOD OF RESIDENCE IN AUSTRALIA

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Period of residence in Australia (years)—									
Under 1 year	24,837	21,213	6,205	11,062	7,563	1,078	288	1,006	73,252
1 and under 2	19,462	17,973	4,688	9,742	4,678	873	255	690	58,361
2 " " 3	16,321	17,784	3,908	8,262	4,007	712	237	732	51,963
3 " " 4	13,876	14,184	2,951	5,757	3,938	494	154	580	41,934
4 " " 5	13,287	12,884	2,561	4,441	2,902	488	177	539	37,279
5 years and over	240,865	225,351	67,141	73,586	65,626	11,983	1,631	7,719	693,902
Not stated	8,268	6,673	2,448	1,533	1,584	366	68	142	21,082
Total, born outside Australia	**336,916**	**316,062**	**89,902**	**114,383**	**90,298**	**15,994**	**2,810**	**11,408**	**977,773**

NATIONALITY

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Nationality—									
British(*a*)—									
Country of citizenship—									
Born in Australia	1,772,444	1,289,560	729,886	428,962	319,684	168,042	13,115	34,628	4,756,321
Born outside Australia	258,431	219,718	78,726	90,495	77,088	13,795	2,066	8,262	748,581
Total, British(a)	*2,030,875*	*1,509,278*	*808,612*	*519,457*	*396,772*	*181,837*	*15,181*	*42,890*	*5,504,902*
Foreign—									
Austrian	1,726	1,438	153	401	103	66	12	124	4,023
Belgian	243	209	118	136	55	14	4	32	811
Dutch	6,640	7,394	2,046	3,129	1,837	580	35	353	22,014
German	6,618	6,903	1,042	2,597	570	325	81	422	18,558
Greek	18,333	27,337	901	4,869	1,066	231	317	279	53,333
Italian	19,298	34,030	2,780	8,538	6,099	363	108	565	71,781
Lebanese	2,256	430	25	61	15	1	. .	2	2,790
Polish	1,905	2,414	305	677	400	160	4	133	5,998
Russian(*b*)	1,409	922	301	260	81	31	1	22	3,027
Spanish	1,806	1,269	298	386	150	11	5	158	4,083
U.S. American	2,312	1,265	1,150	326	730	78	60	185	6,106
Yugoslav	5,801	5,678	346	926	1,080	108	3	287	14,229
Stateless	2,172	2,019	305	447	239	41	17	60	5,300
Other	7,966	5,036	1,406	1,135	785	190	97	524	17,139
Total, foreign	*78,485*	*96,344*	*11,176*	*23,888*	*13,210*	*2,199*	*744*	*3,146*	*229,192*
Grand total	**2,109,360**	**1,605,622**	**819,788**	**543,345**	**409,982**	**184,036**	**15,925**	**46,036**	**5,734,094**

For footnotes *see* opposite page.

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966—*continued*
MALES

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
RELIGIOUS DENOMINATION									
Religious denomination—									
Christian—									
Baptist	26,231	19,469	12,425	10,342	5,118	3,719	208	542	78,054
Brethren	2,101	1,605	1,521	270	393	1,508	6	30	7,434
Catholic, Roman(*a*)	233,111	134,108	88,219	40,016	60,705	16,309	3,599	5,867	581,934
Catholic(*a*)	355,058	314,704	125,365	72,153	48,389	19,747	1,903	10,475	947,794
Churches of Christ	6,452	18,560	4,217	11,884	5,369	1,328	85	312	48,207
Church of England	804,794	455,772	263,810	141,408	159,309	83,094	5,736	15,733	1,929,656
Congregational	10,720	5,394	4,751	8,561	4,016	2,145	90	234	35,911
Orthodox	51,538	52,279	7,432	14,852	6,560	880	1,032	1,045	135,618
Lutheran	15,434	19,052	20,721	29,487	2,640	922	499	1,264	90,019
Methodist	149,199	135,296	88,239	110,976	39,423	20,994	1,610	2,655	548,392
Presbyterian	173,208	188,067	93,169	21,286	22,080	8,648	1,164	4,371	511,993
Salvation Army	8,313	6,954	4,358	3,542	2,388	1,288	116	119	27,078
Seventh-day Adventist	6,457	3,220	3,242	1,339	1,927	663	26	74	16,948
Protestant (undefined)	13,745	22,046	5,603	6,556	3,470	980	243	313	52,956
Other (including Christian undefined)	17,602	16,554	13,132	6,863	5,818	2,584	746	470	63,769
Total, Christian	*1,873,963*	*1,393,080*	*736,204*	*479,535*	*367,605*	*164,809*	*17,063*	*43,504*	*5,075,763*
Non-Christian—									
Hebrew	12,627	15,456	839	622	1,510	119	10	118	31,301
Other	2,871	2,699	1,052	678	768	199	126	122	8,515
Total, non-Christian	*15,498*	*18,155*	*1,891*	*1,300*	*2,278*	*318*	*136*	*240*	*39,816*
Indefinite	6,993	5,078	2,631	1,908	1,558	1,212	117	144	19,641
No religion	21,384	17,569	7,422	5,379	5,060	1,345	481	1,884	60,524
No reply	206,625	180,022	95,749	60,408	50,190	19,696	3,711	4,205	620,606
Grand total	**2,124,463**	**1,613,904**	**843,897**	**548,530**	**426,691**	**187,380**	**21,508**	**49,977**	**5,816,350**

(*a*) As stated in individual censes schedules.

The 1966 Census work force statistics are not strictly comparable with those of past censuses. For a detailed explanation of the new approach adopted at the 1966 Census and its effect on the numbers in the work force for each State and Territory *see* Census Bulletins 1.1 to 9.1.

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
OCCUPATIONAL STATUS									
Occupational status—									
In work force—									
Employed—									
Employer	83,466	67,236	44,111	23,747	21,383	8,245	815	1,388	250,391
Self-employed	106,723	92,302	49,463	31,135	25,136	9,162	601	1,286	315,808
Employee, on wage or salary	1,058,213	777,217	379,207	259,105	195,704	87,567	12,796	27,304	2,797,113
Helper unpaid	4,564	3,333	2,486	1,167	994	432	26	46	13,048
Total, employed	1,252,966	940,088	475,267	315,154	243,217	105,406	14,238	30,024	3.376,360
Unemployed	18,421	10,139	7,964	4,464	2,938	1,146	162	214	45,448
Total, in work force	*1,271,387*	*950,227*	*483,231*	*319,618*	*246,155*	*106,552*	*14,400*	*30,238*	*3,421,808*
Not in work force—									
Child not at school	211,592	167,858	94,825	57,455	48,732	22,542	2,577	6,009	611,590
Child attending school or full-time student	463,353	376,213	187,472	130,409	97,401	44,322	3,594	12,455	1,315,219
Mainly dependent on pension or superannuation	114,701	72,213	50,551	26,500	22,374	9,310	312	795	296,756
Of independent means	16,937	14,602	8,948	5,189	3,626	1,287	87	124	50,800
Home duties	..	..	..	..	..	..	..	..	..
Inmates of institutions	15,556	10,402	5,682	3,267	3,094	1,248	69	15	39,333
Others not in work force	30,937	22,389	13,188	6,092	5,309	2,119	469	341	80,844
Total, not in work force	*853,076*	*663,677*	*360,666*	*228,912*	*180,536*	*80,828*	*7,108*	*19,739*	*2,394,542*
Grand total	**2,124,463**	**1,613,904**	**843,897**	**548,530**	**426,691**	**187,380**	**21,508**	**49,977**	**5,816,350**

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966—*continued*
FEMALES

RELIGIOUS DENOMINATION

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Religious denomination—									
Christian—									
Baptist	29,543	21,950	13,607	11,893	5,602	4,040	195	604	87,434
Brethren	2,363	1,741	1,702	272	406	1,554	10	34	8,082
Catholic, Roman(*a*)	213,187	119,839	78,339	34,952	53,836	14 526	2,471	4,885	522,035
Catholic(*a*)	373,423	320,844	133,746	73,455	50,729	20,503	1,595	10,068	984,363
Churches of Christ	7,488	20,703	4,770	13,460	6,127	1,373	77	340	54,338
Church of England	817,272	467,306	258,730	144,746	156,844	82,920	4,561	15,424	1,947,803
Congregational	12,297	6,426	5,198	9,727	4,359	2,385	88	197	40,677
Orthodox	45,068	48,108	6,464	12,901	5,275	634	646	779	119,875
Lutheran	14,585	18,585	19,516	29,794	2,513	820	342	1,150	87,305
Methodist	156,534	144,004	91,352	116,507	41,417	22,090	1,436	2,578	575,918
Presbyterian	179,876	199,041	95,323	21,401	21,975	8,850	878	4,233	531,577
Salvation Army	9,055	7,796	4,686	3,762	2,534	1,373	100	117	29,423
Seventh-day Adventist	7,980	3,929	3,715	1,660	2,430	834	28	93	20,669
Protestant (undefined)	13,495	22,410	5,354	6,420	3,209	944	171	264	52,267
Other (including Christian undefined)	18,784	17,339	13,763	7,456	6,346	2,659	703	442	67,492
Total, Christian	*1,900,950*	*1,420,021*	*736,265*	*488,406*	*363,602*	*165,505*	*13,301*	*41,208*	*5.129,258*
Non-Christian—									
Hebrew	13,286	15,602	790	627	1,486	88	6	85	31,970
Other	1,583	1,491	601	413	298	79	68	64	4,597
Total, non-Christian	*14,869*	*17,093*	*1,391*	*1,040*	*1,784*	*167*	*74*	*149*	*36,567*
Indefinite	5,907	4,400	2,026	1,593	1,216	1,063	90	114	16,409
No religion	11,812	10,396	3,536	2,993	2,759	675	214	1,182	33,567
No reply	175,822	153,712	76,570	49,313	40,621	16,626	2,246	3,383	518,293
Grand total	**2,109,360**	**1,605,622**	**819,788**	**543,345**	**409,982**	**184,036**	**15,925**	**46,036**	**5,734,094**

(*a*) *See* opposite page.

The 1966 Census work force statistics are not strictly comparable with those of past censuses. For a detailed explanation of the new approach adopted at the 1966 Census and its effect on the numbers in the work force for each State and Territory *see* Census Bulletins 1.1 to 9.1.

OCCUPATIONAL STATUS

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Occupational status—									
In work force—									
Employed—									
Employer	19,774	16,747	10,518	6,228	4,700	1,759	225	271	60,222
Self-employed	23,170	20,008	11,306	7,205	4,689	1,644	134	263	68,419
Employee, on wage or salary	474,185	374,625	149,377	111,197	79,661	35,450	4,171	12,774	1,241,440
Helper unpaid	12,566	8,191	5,483	2,613	2,310	940	76	138	32,317
Total, employed	529,695	419,571	176,684	127,243	91,360	39,793	4,606	13,446	1,402,398
Unemployed	13,070	7,250	4,954	3,563	2,064	971	138	232	32,242
Total, in work force	*542,765*	*426,821*	*181,638*	*130,806*	*93,424*	*40,764*	*4,744*	*13,678*	*1,434,640*
Not in work force—									
Child not at school	201,150	159,767	90,204	54,372	46,195	21,473	2,504	5,763	581,428
Child attending school or full-time student	436,426	345,855	173,526	120,284	90,728	42,100	3,427	11,377	1,223,723
Mainly dependent on pension or superannuation	180,414	117,975	72,683	42,385	32,163	13,550	331	1,356	460,857
Of independent means	20,568	17,544	7,951	5,359	3,402	1,541	59	196	56,620
Home duties	688,030	508,249	278,733	181,791	137,269	61,110	4,585	13,375	1,873,142
Inmates of institutions	15,779	11,867	5,707	3,761	3,166	1,594	13	34	41,921
Others not in work force	24,228	17,544	9,346	4,587	3,635	1,904	262	257	61,763
Total, not in work force	*1,566,595*	*1,178,801*	*638,150*	*412,539*	*316,558*	*143,272*	*11,181*	*32,358*	*4,299,454*
Grand total	**2,109,360**	**1,605,622**	**819,788**	**543,345**	**409,982**	**184,036**	**15,925**	**46,036**	**5,734,094**

POPULATION, BY SEX: STATES AND TERRITORIES
CENSUS, 30 JUNE 1966—*continued*
MALES

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
OCCUPATION GROUPS									
Occupation group—									
Professional, technical and related workers	97,699	76,622	31,023	23,834	17,937	7,841	1,288	4,963	261,207
Administrative, executive and managerial workers	101,082	79,074	35,054	24,280	17,703	7,364	1,084	2,449	268,090
Clerical workers	106,967	80,828	37,140	25,423	20,307	8,155	1,046	5,423	285,289
Sales workers	73,839	57,441	27,836	17,374	12,862	5,428	264	1,240	196,284
Farmers, fishermen, hunters, timber getters and related workers	120,336	98,112	82,680	40,723	38,385	15,429	1,237	917	397,819
Miners, quarrymen and related workers	14,203	2,376	6,142	1,741	4,705	1,884	641	65	31,757
Workers in transport and communications	98,832	66,693	40,278	23,274	20,382	8,071	1,156	1,355	260,041
Craftsmen and production—process workers	478,240	367,342	159,495	126,791	84,803	40,800	4,602	8,243	1,270 316
Labourers n.e.c.	86,962	60,945	34,317	18,636	15,282	6,542	962	1,358	225,004
Service, sport and recreation workers	56,975	38,505	17,991	11,611	9,747	3,823	785	1,451	140,888
Members of armed services	23,188	14,530	7,162	3,432	2,368	353	1,182	2,629	54,844
Occupation inadequately described or not stated	13,064	7,759	4,113	2,499	1,674	862	153	145	30,269
Total, in work force	**1,271,387**	**950,227**	**483,231**	**319,618**	**246,155**	**106,552**	**14,400**	**30,238**	**3,421,808**
INDUSTRY GROUPS									
Industry group—									
Rural industries	108,125	88,357	76,729	36,989	34,267	13,285	1,187	419	359,358
Other primary	6,174	4,434	4,753	1,896	2,697	1,768	132	131	21,985
Mining and quarrying	22,605	4,799	10,981	3,070	8,021	3,245	1,231	75	54,027
Manufacturing—									
Cement, bricks, glass, stone, etc.	20,403	13,971	4,801	4,367	3,507	1,065	105	351	48,570
Founding, engineering and metal working	153,650	91,619	24,363	36,910	14,795	6,565	215	533	328,650
Ships, vehicles, parts and accessories	53,945	54,107	17,872	25,118	8,337	2,222	221	362	162,184
Yarns, textiles, etc.	9,771	15,494	1,282	1,908	695	1,803	4	6	30 963
Clothing and knitted goods	6,926	10,352	902	656	323	91	4	27	19,281
Food, drink and tobacco	43,359	38 837	27,720	11,399	7,112	4,387	297	232	133,343
Sawmilling and wood products	14,268	10,196	8,492	4,482	5,057	3,936	61	143	46,635
Furniture, bedding, etc.	9,230	7,028	3,249	2,230	1,841	592	16	86	24 272
Paper and printing	29,721	24,508	6,833	5,129	3,610	4,988	54	926	75,769
Chemicals, etc.	18,687	14,850	2,512	3,306	2,117	917	10	27	42,426
Other manufacturing (including undefined)	30,162	30,718	6,277	5,293	3,151	541	52	291	76,485
Electricity, gas, water and sanitary services	36,257	31,416	10,393	10,805	5,508	3,743	335	458	98,915
Building and construction	149,335	104,783	66,092	36,919	33,886	13,956	3,029	5,579	413,579
Transport and storage	96,318	62,842	38,941	21,811	22,118	8,294	1,582	917	252,823
Communication	28,891	23,262	11,095	7,683	5,698	2,907	353	571	80,460
Banking	18,937	13,830	6,362	4,221	3,398	1,261	124	348	48,481
Insurance	11,693	9,023	4,087	2,835	2,003	909	52	229	30,831
Other finance and property	11,401	7,366	3,626	2 745	1,950	676	28	258	28,050
Retail trade	106,242	79,519	41,312	25,736	19,736	8,381	607	1,889	283,422
Other commerce	68,493	55,620	28,750	19,125	17,139	5,812	332	798	196,069
Public authority activities	31,516	23,652	14,528	7,598	8,138	3,523	1,340	6,553	96,848
Defence service	28,274	18,314	8,071	3,927	2,748	418	1,219	3,603	66,574
Law, order and public safety	14,871	10,574	5,862	3,396	2,474	1,321	217	429	39,144
Religion and social welfare	5,552	5,159	2,765	1,892	1,442	490	277	191	17,768
Health, hospitals, etc.	18,813	13,425	7,793	4,094	4,295	1,717	214	331	50,682
Education	27,849	23,950	10,546	7,737	6,477	2,587	243	1,897	81,286
Other community and business services	17,511	11,979	4,883	3,104	3,134	818	127	528	42,084
Amusement, sport and recreation	14,436	9,571	5,051	2,885	2,737	1,182	175	681	36,718
Hotels, boarding houses, etc.	25,708	16,278	7,238	4,640	3,641	1,420	329	743	59,997
Other personal service	11,894	8,595	3,482	2,271	1,797	639	46	262	28,986
Other industries including inadequately described or not stated	20,370	11,799	5,588	3,441	2,306	1,093	182	364	45,143
Total, in work force	**1,271,387**	**950,227**	**483,231**	**319,618**	**246,155**	**106,552**	**14,400**	**30,238**	**3,421,808**

POPULATION, BY SEX: STATES AND TERRITORIES CENSUS, 30 JUNE 1966—*continued*

FEMALES

Characteristic	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
OCCUPATION GROUPS									
Occupation group—									
Professional, technical and related workers	69,197	54,301	23,873	18,652	13,327	6,718	890	2,413	189,371
Administrative, executive and managerial workers	14,481	10,584	4,913	3,094	2,115	893	168	325	36,573
Clerical workers	170,199	122,898	53,859	36,000	27,193	10,613	1.361	6,134	428,257
Sales workers	65,064	48,045	24,790	19,161	14,385	5,815	550	1,372	179,182
Farmers, fishermen, hunters, timber getters and related workers	20,811	18,728	14,949	8,420	6,081	2,020	90	75	71,174
Miners, quarrymen and related workers	9	2	10	26	1	..	..	..	48
Workers in transport and communication	13,501	9,352	4,350	3,046	2,315	1,044	116	344	34,068
Craftsmen and production—process workers	88,525	92,300	16,377	15,523	6,578	5,014	88	325	224,730
Labourers n.e.c.	1,582	1,202	207	279	70	25	7	7	3,379
Service, sport and recreation workers	80,684	57,103	31,862	21,986	18,295	6,854	1,174	2,133	220,091
Members of armed services	858	725	291	168	84	26	100	208	2,460
Occupation inadequately described or not stated	17,854	11,581	6,157	4,451	2,980	1,742	200	342	45,307
Total, in work force	**542,765**	**426,821**	**181,638**	**130,806**	**93,424**	**40,764**	**4,744**	**13,678**	**1,434,640**
INDUSTRY GROUPS									
Industry group—									
Rural industries	22,324	19,076	15,896	8,690	6,375	2,098	180	63	74,702
Other primary	149	103	108	80	99	63	5	..	607
Mining and quarrying	738	400	534	161	310	128	39	6	2,316
Manufacturing—									
Cement, bricks, glass, stone, etc.	2,346	1,854	301	444	289	87	4	17	5,342
Founding, engineering and metal working	31,341	20,558	3,314	7,941	1,606	603	24	41	65,428
Ships, vehicles, parts and accessories	4,522	6,594	958	1,877	369	152	17	34	14,523
Yarns, textiles, etc.	8,529	13,453	1,285	1,360	410	2,167	2	6	27,212
Clothing and knitted goods	31,119	36 685	5,257	2,438	1,790	299	11	51	77,650
Food, drink and tobacco	14,053	14,019	6,371	4,380	2,610	2,040	71	70	43,614
Sawmilling and wood products	1,194	753	773	457	316	152	3	10	3,658
Furniture, bedding, etc.	2,122	1,559	600	519	345	108	2	17	5,272
Paper and printing	12,515	9,452	2,813	1,944	1,396	1,030	32	320	29,502
Chemicals etc.	7,737	4,923	646	735	333	86	3	5	14,468
Other manufacturing (including undefined)	14,724	16,960	1,982	2,163	884	126	8	32	36,879
Electricity, gas, water and sanitary services	2,787	2,383	745	563	346	258	7	31	7,120
Building and construction	5,579	4,093	2,109	1.515	1,181	333	62	180	15,052
Transport and storage	10,460	6,501	3,518	2,171	1,784	566	162	102	25,264
Communication	8,450	6,576	3,342	2,200	1,341	984	79	217	23,189
Banking	11,223	7,903	3,317	2,064	1,674	663	61	233	27,138
Insurance	10,904	7,572	2,752	2.165	1,413	682	31	150	25,669
Other finance and property	8,559	5,045	2,640	1,862	1,330	374	29	212	20,051
Retail trade	89,405	63,014	33,312	24,924	18,862	7,448	707	1,846	239,518
Other commerce	25,535	18,338	9,585	6,420	5,339	1,329	96	206	66,848
Public authority activities	14,654	9,250	5,745	3,226	2,873	1,497	549	3,000	40,794
Defence service	1,914	2,004	524	315	179	59	117	736	5,848
Law, order and public safety	6,629	5,159	1,829	985	847	493	42	119	16,103
Religion and social welfare	5,758	5,878	2,665	1,917	1,597	692	163	104	18,774
Health, hospitals, etc.	52,693	37,377	19,334	13,710	12,084	4,703	656	1,182	141,739
Education	38,560	31,157	13,256	11,733	7,969	4,119	418	2,174	109,386
Other community and business services	12,844	8,751	3,416	2,277	1,875	548	52	252	30,015
Amusement sport and recreation	7,139	5,061	2,851	1,153	1,234	426	50	205	18,119
Hotels, boarding houses, etc.	40,626	28,427	18,614	9,204	8,384	3,649	727	1,284	110,915
Other personal service	14,647	12,589	4,367	4,346	2,755	962	108	359	40,133
Other industries including inadequately described or not stated	20,986	13,354	6,879	4,867	3,225	1,840	227	414	51,792
Total, in work force	**542,765**	**426,821**	**181,638**	**130,806**	**93,424**	**40,764**	**4,744**	**13,678**	**1,434,640**

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES

This list refers to special articles and other more or less important miscellaneous matter which have appeared in previous issues of the Year Book but which are not included, or are included in abbreviated form only, in the present issue.

The figures below indicate, respectively, the number and page of the Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given. For possible revisions, however, issues immediately following the one referred to should also be consulted.

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